Volume 29 Number 4 November 2002

THE CANADIAN JOURNAL OF
Neurological Sciences
LE JOURNAL CANADIEN DES
Sciences Neurologiques

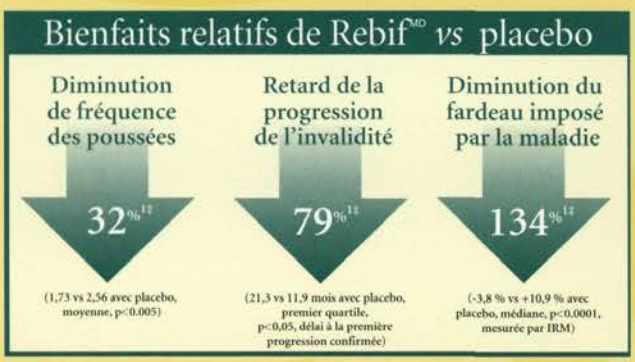
AN INTERNATIONAL JOURNAL / UN JOURNAL INTERNATIONAL

Tests of Motor Function

Tarsal Tunnel Syndrome Caused by an Inflatable Ice Hockey Skate

38th CANADIAN CONGRESS OF NEUROLOGICAL SCIENCES
June 17 - 21, 2003
Quebec City, Quebec

The official Journal of: The Canadian Neurological Society, The Canadian Neurosurgical Society, The Canadian Society of Clinical Neurophysiologists, The Canadian Association of Child Neurology



Résultats de la dose de 44 mcg trois fois par semaine après 2 ans[1].

Au cours de deux études pivots incluant un total de 628 patients, Rebif a démontré une efficacité significative pour les trois paramètres principaux (poussées, progression de l'invalidité et IRM)[1,2].

Sa capacité de modifier le cours de la maladie[2] a fait non seulement de Rebif un bon médicament de première ligne pour la SEP rémittente, mais également le médicament dominant de sa catégorie[3].

Rebif est généralement bien toléré. Les effets indésirables les plus fréquents sont souvent traitables et diminuent en fréquence et en gravité avec le temps[2†].

Rebif modifie l'évolution naturelle de la SEP rémittente[2].

Rebif^MD est indiqué pour le traitement de la sclérose en plaques rémittente chez des patients dont la cote EDSS se situe entre 0 et 5,0, afin de réduire le nombre et la gravité des poussées cliniques, de ralentir la progression de l'invalidité physique et de réduire les besoins de corticothérapie et le nombre de séjours à l'hôpital pour le traitement de la sclérose en plaques. Son efficacité a été confirmée au moyen d'évaluations IRM en T_1 marquées au Gd et d'évaluations IRM en T_2 (fardeau imposé par la maladie)[2].

† Les effets indésirables rapportés le plus souvent sont les suivants : réactions au point d'injection (toutes) (92,4 % *vs* 38,5 % pour le placebo), infections des voies respiratoires supérieures (74,5 % *vs* 85,6 % pour le placebo), céphalée (70,1 % *vs* 62,6 % pour le placebo), syndrome pseudo-grippal (58,7 % *vs* 51,3 % pour le placebo), fatigue (41,3 % *vs* 35,8 % pour le placebo) et fièvre (27,7 % *vs* 15,5 % pour le placebo). Les preuves d'innocuité et d'efficacité sont obtenues de l'étude de 2 ans seulement. Veuillez consulter la monographie du produit pour les renseignements d'ordonnance[2].

‡ Étude randomisée, à double insu, contrôlée par placebo. Groupe Rebif 44 mcg 3 fois/semaine (n = 184), groupe Rebif 22 mcg 3 fois/semaine (n = 189), groupe placebo (n = 187)[1].

Δ Le cas hypothétique peut ne pas représenter les résultats obtenus dans la population générale.

CCPP

Pr Rebif^MD
interféron bêta-1a

serono

POUR DE MULTIPLES RAISONS.

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For brief prescribing information see pages A-30, A-31

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La Société Canadienne de Neurologie

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Consider 600 mg tablets *t.i.d.* for patients receiving 1800 mg/day.

Consider 800 mg tablets *t.i.d.* for patients receiving 2400 mg/day.

Usual effective dose is 900-1800 mg/day. Doses of 3600 mg/day have been administered to a small number of patients for a relatively short duration and have been tolerated.

NEURONTIN: Combining efficacy with dosage flexibility and a user-friendly profile

- Dose response efficacy§
- Generally well tolerated
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  - No cytochrome P450 drug interactions reported
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- Five dosage strengths to aid titration and promote patient compliance†

PrNEURONTIN* (gabapentin)

USER FRIENDLY EFFICACY

Indicated for use as adjunctive therapy for the management of patients with epilepsy not satisfactorily controlled by conventional therapy.
Because NEURONTIN is eliminated renally, dosage adjustment is necessary in renally-compromised patients or those patients undergoing hemodialysis.
The most commonly-observed adverse events not seen at an equivalent frequency in placebo-treated patients were somnolence, dizziness, ataxia, fatigue, nystagmus and tremor.

If further medical information is required, please contact the Pfizer Medical Information Department at 1-800-463-6001.

§ Data from clinical trials suggest that doses higher than 1200 mg/day may have increased efficacy in some patients; however, higher doses may also increase the incidence of adverse events.
† See prescribing information for complete dosage, administration and drug interactions.

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Life is our life's work

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For brief prescribing information see page A-41

NOW BETA

"Now my family and I don't have to confront my MS every time I open the fridge door."

—Teresa, MS focus group, April 2002

REFRIGERATION-FREE
storage for a new level of convenience

- New discrete storage flexibility
- Easier to transport and travel with (keep between 15 and 30 °C)

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NEW REFRIGERATION-FREE STORAGE

TER THAN EVER

Same proven therapy

- Reduces relapse FREQUENCY and SEVERITY in RRMS[1-3]
- Backed by MS Pathways™ of Canada patient management support with toll-free hotline access to MS-specialized registered nurses

BETASERON® (interferon beta-1b) is indicated for the reduction of the frequency of clinical exacerbations in ambulatory patients with relapsing-remitting multiple sclerosis and for the slowing of progression in disability and the reduction of the frequency of clinical exacerbations in patients with secondary-progressive multiple sclerosis.

The safety and efficacy of BETASERON® in primary progressive MS have not been evaluated. Efficacy of treatment for longer than 2 years has not been substantially demonstrated in relapsing-remitting multiple sclerosis (RRMS).

The most common side effects related to BETASERON® in patients with RRMS are: flu-like syndrome (76%), fever (59%), chills (46%), injection-site reactions (85%), myalgia (44%), asthenia (49%) and malaise (15%).[2] Flu-like symptoms and injection-site reactions are manageable and lessen with time.[2]

FOR COMPLETE WARNINGS AND PRECAUTIONS, PLEASE REFER TO THE PRODUCT MONOGRAPH, AVAILABLE TO HEALTH CARE PROFESSIONALS UPON REQUEST.

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INTERFERON BETA-1b

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www.betaseron.ca
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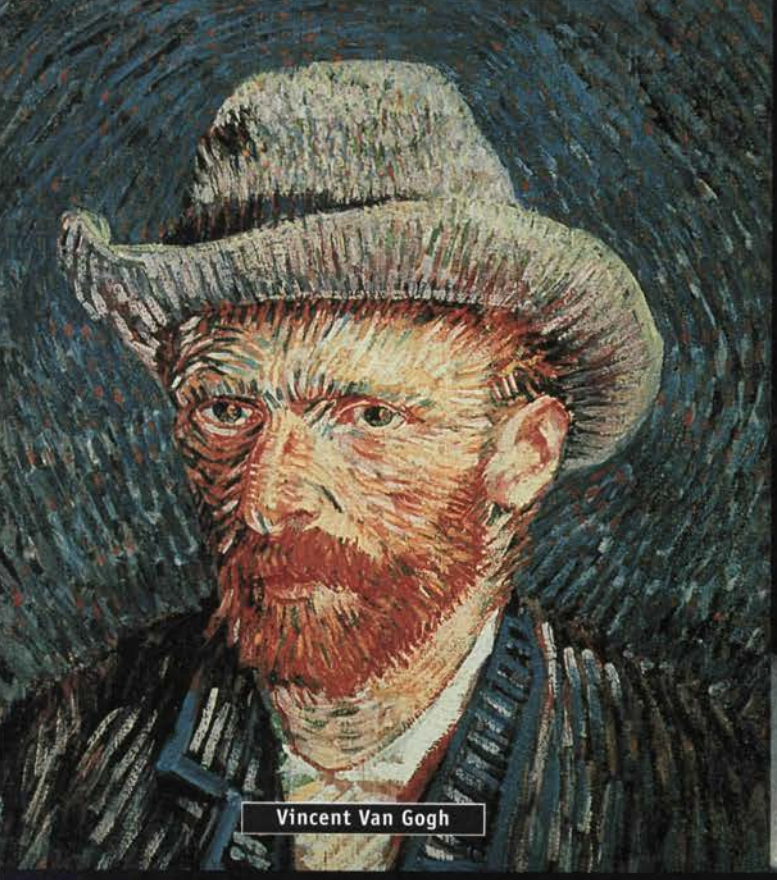
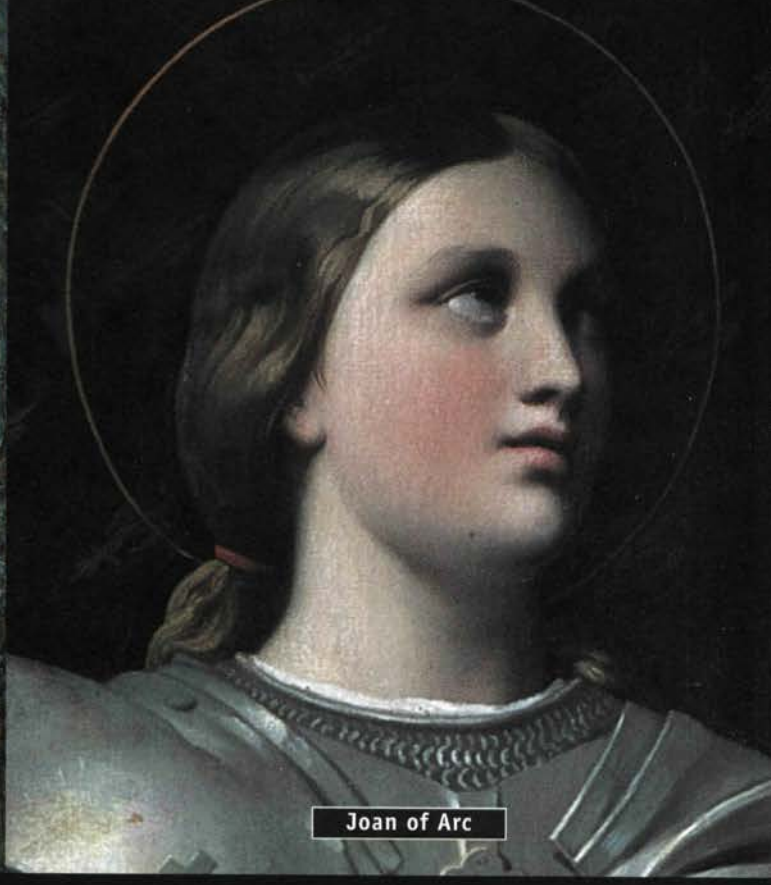
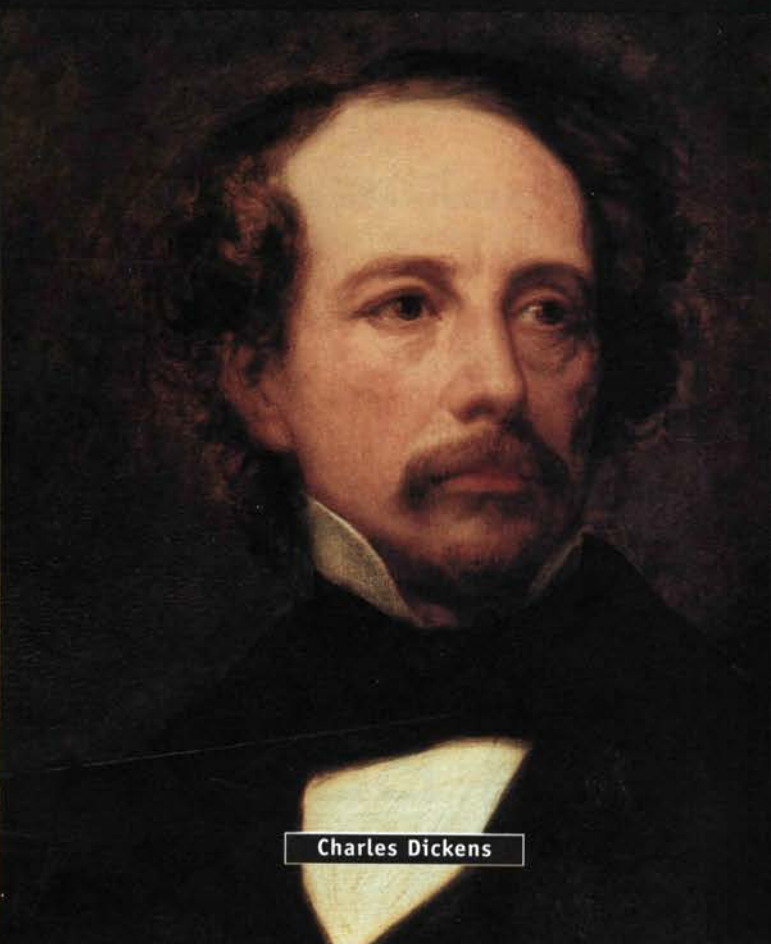




YESTERDAY, PEOPLE WITH EPILEPSY HAD TO BE EXTRAORDINARY TO SUCCEED.



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EFFICACY ACROSS A BROAD RANGE OF SEIZURES.

- TOPAMAX demonstrates efficacy in Partial Onset, Primary Generalized Tonic-Clonic, and Lennox-Gastaut Seizures[1]
- 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**[1]

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††

NOW AVAILABLE IN SPRINKLE CAPSULES

TOPAMAX* topiramate

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.

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• After a paper has been reviewed, the author will be requested to submit four copies of the revised manuscript, including illustrations. Supply a computer diskette (3 1/2" size) containing the article *saved in an RTF format*. Identify clearly first author's name, file name, word processing program and version, and system (i.e. PC or Mac). Clearly indicate the order and importance of headings.

• For detailed instructions regarding style and layout refer to *"Uniform requirements for manuscripts submitted to biomedical journals"*. Copies of this document may be obtained by writing to the Journal office, but the main points are summarized here. Articles should be submitted under conventional headings of *introduction, methods and materials, results, discussion,* but other headings will be considered if more suitable. Clinical trials must be reported in Consort format (JAMA 1996; 276: 637-639). Pages of text should be numbered consecutively.

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Journals

Yang JF, Fung M, Edamura R, et al. H-Reflex modulation during walking in spastic paretic subjects. Can J Neurol Sci 1991; 18: 443-452.

Chapter in a book

McGeer PL, McGeer EG. Amino acid neurotransmitters. *In*: Siegel GJ, Albers RW, Agranoff BW, Katzman R, eds. Basic Neurochemistry. Boston: Little, Brown & Co., 1981: 233-254.

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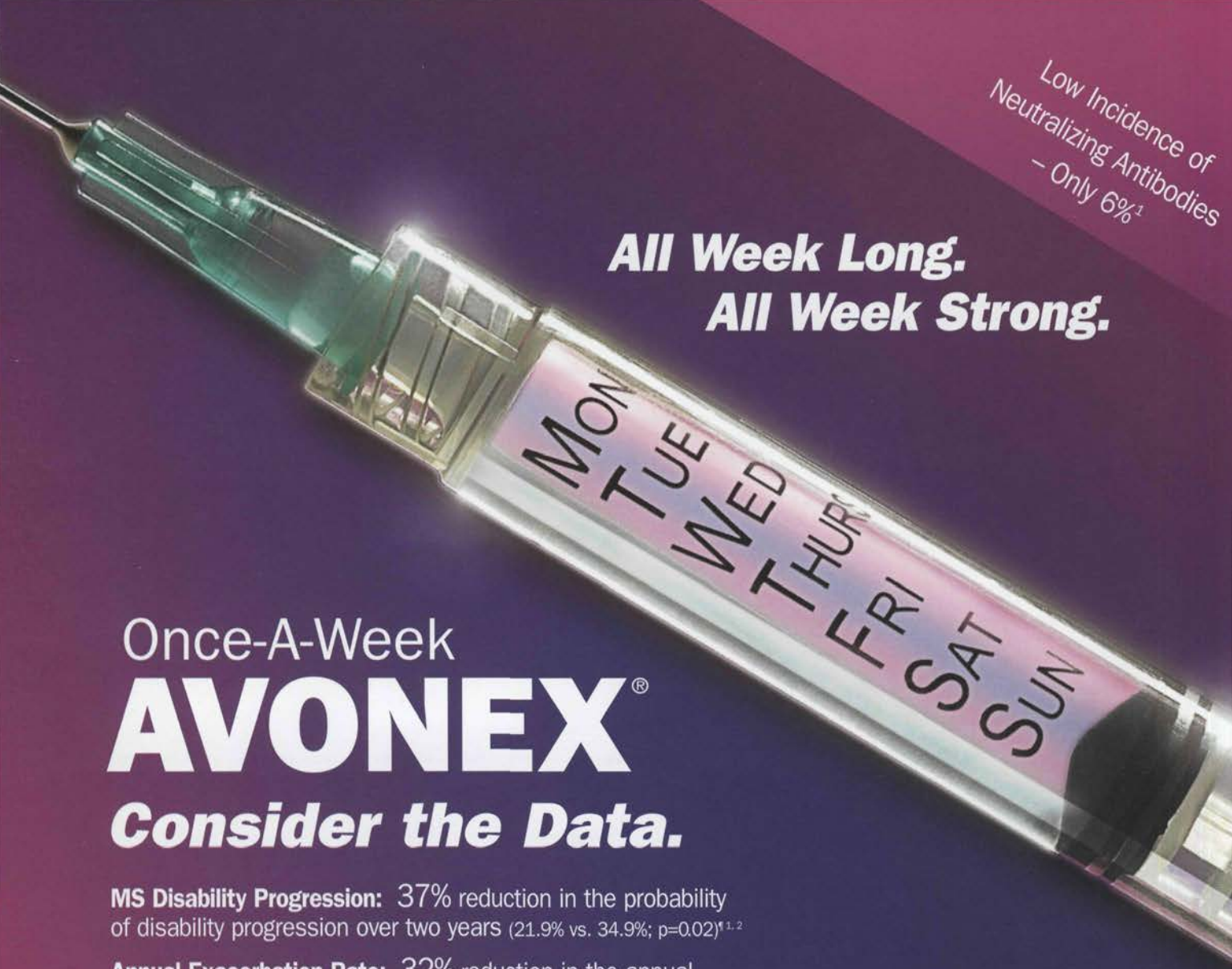
Low Incidence of Neutralizing Antibodies – Only 6%[1]

All Week Long.
All Week Strong.



Once-A-Week

AVONEX®

Consider the Data.

MS Disability Progression: 37% reduction in the probability of disability progression over two years (21.9% vs. 34.9%; p=0.02)¶[1,2]

Annual Exacerbation Rate: 32% reduction in the annual exacerbation rate over two years (0.61 vs. 0.90; p=0.002)*[1,2]

Relapse-free Rate: 38% of patients remained relapse free at two years (p=0.03)@[1,2]

Brain Atrophy Reduction: 55% reduction in brain atrophy progression during the second year of therapy (-0.233 vs. -0.521; p=0.03)#[3]

MRI Lesions: 89% reduction in gadolinium-enhanced lesions in patients with enhancement at baseline (0.11 vs. 0.50; p=0.041)†[4]

AVONEX® is indicated for the treatment of relapsing forms of MS.[1]

Pr ONCE-A-WEEK AVONEX® (Interferon beta-1a) IM injection

AVONEX® is generally well tolerated. The most common side effects associated with treatment are flu-like symptoms (muscle ache [myalgia], fever, chills, and asthenia). Please see product monograph for important patient selection and monitoring information.[1] AVONEX® should be used with caution in patients with depression and in patients with seizure disorders. AVONEX® should not be used by pregnant women. Patients with cardiac disease should be closely monitored. Routine periodic blood chemistry and hematology tests are recommended during treatment with AVONEX®.[1]

¶ Kaplan-Meier methodology. AVONEX® n=158, placebo n=143.
* AVONEX® n=85, placebo n=87.
@ n=85.
# As measured by brain parenchymal fraction in the second year of treatment. AVONEX® n=68, placebo n=72.
† AVONEX® n=44, placebo n=44. The exact relationship between MRI findings and clinical status is unknown.

BIOGEN CANADA

PAAB

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Once-a-day

℗ **Aricept***

donepezil HCl 5 & 10 mg tablets

PHARMACOLOGIC CLASSIFICATION Cholinesterase Inhibitor **ACTION AND CLINICAL PHARMACOLOGY ARICEPT** (donepezil hydrochloride) is a piperidine-based, reversible inhibitor of the enzyme acetylcholinesterase. A consistent pathological change in Alzheimer's disease is the degeneration of cholinergic neuronal pathways that project from the basal forebrain to the cerebral cortex and hippocampus. The resulting hypofunction of these pathways is thought to account for some of the clinical manifestations of dementia. Donepezil is postulated to exert its therapeutic effect by enhancing cholinergic function. This is accomplished by increasing the concentration of acetylcholine (ACh) through reversible inhibition of its hydrolysis by acetylcholinesterase (AchE). If this proposed mechanism of action is correct, donepezil's effect may lessen as the disease process advances and fewer cholinergic neurons remain functionally intact. There is no evidence that donepezil alters the course of the underlying dementing process. **INDICATIONS AND CLINICAL USE ARICEPT** (donepezil hydrochloride) is indicated for the symptomatic treatment of patients with mild-to-moderate dementia of the Alzheimer's type. **ARICEPT** tablets should only be prescribed by (or following consultation with) clinicians who are experienced in the diagnosis and management of Alzheimer's disease. **CONTRAINDICATIONS ARICEPT** (donepezil hydrochloride) is contraindicated in patients with known hypersensitivity to donepezil hydrochloride or to piperidine derivatives. **WARNINGS *Anaesthesia:*** **ARICEPT** (donepezil hydrochloride), as a cholinesterase inhibitor, is likely to exaggerate succinylcholine-type muscle relaxation during anaesthesia. ***Neurological Conditions:*** **Seizures:** Some cases of seizures have been reported with the use of **ARICEPT** in clinical trials and from spontaneous Adverse Reaction reporting. Cholinomimetics can cause a reduction of seizure threshold, increasing the risk of seizures. However, seizure activity may also be a manifestation of Alzheimer's disease. The risk/benefit of **ARICEPT** treatment for patients with a history of seizure disorder must therefore be carefully evaluated. **ARICEPT** has not been studied in patients with moderately severe or severe Alzheimer's disease, non-Alzheimer dementias or individuals with Parkinsonian features. The efficacy and safety of **ARICEPT** in these patient populations is unknown. ***Pulmonary Conditions:*** Because of their cholinomimetic action, cholinesterase inhibitors should be prescribed with care to patients with a history of asthma or obstructive pulmonary disease. **ARICEPT** has not been studied in patients under treatment for these conditions and should therefore be used with particular caution in such patients. ***Cardiovascular:*** Because of their pharmacological action, cholinesterase inhibitors may have vagotonic effects on heart rate (e.g., bradycardia). The potential for this action may be particularly important to patients with "sick sinus syndrome" or other supraventricular cardiac conduction conditions. In clinical trials, most patients with serious cardiovascular conditions were excluded. Patients such as those with controlled hypertension (DBP<95 mmHg), right bundle branch blockage, and pacemakers were included. Therefore, caution should be taken in treating patients with active coronary artery disease and congestive heart failure. Syncopal episodes have been reported in association with the use of **ARICEPT**. It is recommended that **ARICEPT** should not be used in patients with cardiac conduction abnormalities (except for right bundle branch block) including "sick sinus syndrome" and those with unexplained syncopal episodes. ***Gastrointestinal:*** Through their primary action, cholinesterase inhibitors may be expected to increase gastric acid secretion due to increased cholinergic activity. Therefore, patients at increased risk for developing ulcers, e.g., those with a history of ulcer disease or those receiving concurrent nonsteroidal anti-inflammatory drugs (NSAIDs) including high doses of acetylsalicylic acid (ASA), should be monitored for symptoms of active or occult gastrointestinal bleeding. Clinical studies of **ARICEPT** have shown no increase, relative to placebo in the incidence of either peptic ulcer disease or gastrointestinal bleeding. (See **ADVERSE REACTIONS** Section) **ARICEPT**, as a predictable consequence of its pharmacological properties, has been shown to produce, in controlled clinical trials in patients with Alzheimer's disease, diarrhea, nausea and vomiting. These effects, when they occur, appear more frequently with the 10 mg dose than with the 5 mg dose. In most cases, these effects have usually been mild and transient, sometimes lasting one-to- three weeks and have resolved during continued use of **ARICEPT**. (See **ADVERSE REACTIONS** Section) Treatment with the 5 mg/day dose for 4-6 weeks prior to increasing the dose to 10 mg/day is associated with a lower incidence of gastrointestinal intolerance. ***Genitourinary:*** Although not observed in clinical trials of **ARICEPT**, cholinomimetics may cause bladder outflow obstruction. **PRECAUTIONS Concomitant Use with other Drugs: *Use with Anticholinergics:*** Because of their mechanism of action, cholinesterase inhibitors have the potential to interfere with the activity of anticholinergic medications. ***Use with Cholinomimetics and other Cholinesterase Inhibitors:*** A synergistic effect may be expected when cholinesterase inhibitors are given concurrently with succinylcholine, similar neuromuscular blocking agents or cholinergic agonists such as bethanechol. ***Use with other Psychoactive Drugs:*** Few patients in controlled clinical trials received neuroleptics, antidepressants or anticonvulsants; there is thus limited information concerning the interaction of **ARICEPT** with these drugs. ***Use in Patients ≥ 85 Years Old:*** In controlled clinical studies with 5 and 10 mg of **ARICEPT**, 536 patients were between the ages of 65 to 84, and 37 patients were aged 85 years or older. In Alzheimer's disease patients, nausea, diarrhea, vomiting, insomnia, fatigue and anorexia increased with dose and age and the incidence appeared to be greater in female patients. Since cholinesterase inhibitors as well as Alzheimer's disease can be associated with significant weight loss, caution is advised regarding the use of **ARICEPT** in low body weight elderly patients, especially in those ≥ 85 years old. ***Use in Elderly Patients with Comorbid Disease:*** There is limited safety information for **ARICEPT** in patients with mild-to-moderate Alzheimer's disease and significant comorbidity. The use of **ARICEPT** in Alzheimer's disease patients with chronic illnesses common among the geriatric population, should be considered only after careful risk/benefit assessment and include close monitoring for adverse events. Caution is advised regarding the use of **ARICEPT** doses above 5 mg in this patient population. ***Renally and Hepatically Impaired:*** There is limited information regarding the pharmacokinetics of **ARICEPT** in renally and hepatically impaired Alzheimer's disease patients. Close monitoring for adverse effects in Alzheimer's disease patients with renal or hepatic disease being treated with **ARICEPT** is therefore recommended. **Drug-Drug Interactions:** Pharmacokinetic studies, limited to short-term, single-dose studies in young subjects evaluated the potential of **ARICEPT** for interaction with theophylline, cimetidine, warfarin and digoxin administration. No significant effects on the pharmacokinetics of these drugs were observed. Similar studies in elderly patients were not done. ***Drugs Highly Bound to Plasma Proteins:*** Drug displacement studies have been performed *in vitro* between donepezil, a highly bound drug (96%) and other drugs such as furosemide, digoxin, and warfarin. Donepezil at concentrations of 0.3 - 10 μg/mL did not affect the binding of furosemide (5 μg/mL), digoxin (2 ng/mL) and warfarin (3 μg/mL) to human albumin. Similarly, the binding of donepezil to human albumin was not affected by furosemide, digoxin and warfarin. ***Effect of ARICEPT on the Metabolism of Other Drugs:*** *In vitro* studies show a low rate of donepezil binding to CYP 3A4 and CYP 2D6 isoenzymes (mean Ki about 50 - 130 μM), which, given the therapeutic plasma concentrations of donepezil (164 nM), indicates little likelihood of interferences. in a pharmacokinetic study involving 18 healthy volunteers, the administration of **ARICEPT** at a dose of 5mg/day for 7 days had no clinically significant effect on the pharmacokinetics of ketoconazole. No other clinical trials have been conducted to investigate the effect of **ARICEPT** on the clearance of drugs metabolized by CYP 3A4 (e.g., cisapride, terfenadine) or by CYP 2D6 (e.g., imipramine). It is not known whether **ARICEPT** has any potential for enzyme induction. ***Effect of Other Drugs on the Metabolism of ARICEPT:*** Ketoconazole and quinidine, inhibitors of CYP 450, 3A4 and 2D6, respectively, inhibit donepezil metabolism *in vitro*. In a pharmacokinetic study, 18 healthy volunteers received 5 mg/day **ARICEPT** together with 200 mg/day ketoconazole for 7 days. In these volunteers, mean donepezil plasma concentrations were increased by about 30-36%. Inducers of CYP 2D6 and CYP 3A4 (e.g., phenytoin, carbamazepine, dexamethasone, rifampin and phenobarbital) could increase the rate of elimination of **ARICEPT**. Pharmacokinetic studies demonstrated that the metabolism of **ARICEPT** is not significantly affected by concurrent administration of digoxin or cimetidine. ***Use in Pregnancy and Nursing Mothers:*** The safety of **ARICEPT** during pregnancy and lactation has not been established and therefore, it should not be used in women of childbearing potential or in nursing mothers unless, in the opinion of the physician, the potential benefits to the patient outweigh the possible hazards to the fetus or the infant. Teratology studies conducted in pregnant rats at doses of up to 16 mg/kg/day and in pregnant rabbits at doses of up to 10 mg/kg/day did not disclose any evidence for a teratogenic potential of **ARICEPT**. ***Pediatric Use:*** There are no adequate and well-controlled trials to document the safety and efficacy of **ARICEPT** in any illness occurring in children. Therefore, **ARICEPT** is not recommended for use in children. **ADVERSE REACTIONS** A total of 747 patients with mild-to-moderate Alzheimer's disease were treated in controlled clinical studies with **ARICEPT** (donepezil hydrochloride). Of these patients, 613 (82%) completed the studies. The mean duration of treatment for all **ARICEPT** groups was 132 days (range 1-356 days). ***Adverse Events Leading to Discontinuation:*** The rates of discontinuation from controlled clinical trials of **ARICEPT** due to adverse events for the **ARICEPT** 5 mg/day treatment groups were comparable to those of placebo-treatment groups at approximately 5%. The rate of discontinuation of patients who received the 10 mg/day dose after only a 1-week initial treatment with 5 mg/day **ARICEPT** was higher at 13%. The most common adverse events leading to discontinuation, defined as those occurring in at least 2% of patients and at twice the incidence seen in placebo patients, are shown in Table 1.

Table 1. Most Frequent Adverse Events Leading to Withdrawal from Controlled Clinical Trials by Dose Group

Dose Group	Placebo	5 mg/day ARICEPT	10 mg/day ARICEPT
Number of Patients Randomized	355	350	315
Events/% Discontinuing			
Nausea	1%	1%	3%
Diarrhea	0%	<1%	3%
Vomiting	<1%	<1%	2%

Most Frequent Adverse Clinical Events Seen in Association with the Use of ARICEPT: The most common adverse events, defined as those occurring at a frequency of at least 5% in patients receiving 10 mg/day and twice the placebo rate, are largely predicted by **ARICEPT**'s cholinomimetic effects. These include nausea, diarrhea, insomnia, vomiting, muscle cramps, fatigue and anorexia. These adverse events were often of mild intensity and transient, resolving during continued **ARICEPT** treatment without the need for dose modification. There is evidence to suggest that the frequency of these common adverse events may be affected by the duration of treatment with an initial 5 mg daily dose prior to increasing the dose to 10 mg/day. An open-label study was conducted with 269 patients who received placebo in the 15- and 30-week studies. These patients received a 5 mg/day dose for 6 weeks prior to initiating treatment with 10 mg/day. The rates of common adverse events were lower than those seen in controlled clinical trial patients who received 10 mg/day after only a one-week initial treatment period with a 5 mg daily dose, and were comparable to the rates noted in patients treated only with 5 mg/day. See Table 2 for a comparison of the most common adverse events following one- and six-week initial treatment periods with 5 mg/day **ARICEPT**.

Table 2. Comparison of Rates of Adverse Events in Patients Treated with 10 mg/day after 1 and 6 Weeks of Initial Treatment with 5 mg/day

	No Initial Treatment		One-Week Initial Treatment with 5 mg/day	Six-Week Initial Treatment with 5 mg/day
Adverse Event	**Placebo (n = 315)**	**5 mg/day (n = 311)**	**10 mg/day (n = 315)**	**10 mg/day (n = 269)**
Nausea	6%	5%	19%	6%
Diarrhea	5%	8%	15%	9%
Insomnia	6%	6%	14%	6%
Fatigue	3%	4%	8%	3%
Vomiting	3%	3%	8%	5%
Muscle Cramps	2%	6%	8%	3%
Anorexia	2%	3%	7%	3%

Adverse Events Reported in Controlled Trials: The events cited reflect experience gained under closely monitored conditions of clinical trials in a highly selected patient population. In actual clinical practice or in other clinical trials, these frequency estimates may not apply, as the conditions of use, reporting behavior, and the kinds of patients treated may differ. Table 3 lists treatment-emergent signs and symptoms (TESS) that were reported in at least 2% of patients from placebo-controlled clinical trials who received **ARICEPT** and for which the rate of occurrence was greater for **ARICEPT** than placebo-assigned patients. In general, adverse events occurred more frequently in female patients and with advancing age.

Table 3. Adverse Events Reported in Controlled Clinical Trials in at Least 2% of Patients Receiving ARICEPT and at a Higher Frequency than Placebo-Treated Patients

Body System/ Adverse Events	Placebo n = 355	ARICEPT n = 747	Body System/ Adverse Events	Placebo n = 355	ARICEPT n = 747
Percent of Patients with any Adverse Event	72	74	**Metabolic and Nutritional**		
Body as a Whole			Weight Decrease	1	3
Headache	9	10	**Musculoskeletal System**		
Pain, various locations	8	9	Muscle Cramps	2	6
Accident	6	7	Arthritis	1	2
Fatigue	3	5	**Nervous System**		
Cardiovascular System			Insomnia	6	9
Syncope	1	2	Dizziness	6	8
Digestive System			Depression	<1	3
Nausea	6	11	Abnormal Dreams	0	3
Diarrhea	5	10	Somnolence	<1	2
Vomiting	3	5	**Urogenital**		
Anorexia	2	4	Frequent Urination	1	2
Hemic and Lymphatic Systems					
Ecchymosis	3	4			

Other Adverse Events Observed During Clinical Trials: During the pre-marketing phase, **ARICEPT** has been administered to over 1700 individuals for various lengths of time during clinical trials worldwide. Approximately 1,200 patients have been treated for at least 3 months, and more than 1,000 patients have been treated for at least 6 months. Controlled and uncontrolled trials in the United States included approximately 900 patients. In regards to the highest dose of 10 mg/day, this population includes 650 patients treated for 3 months, 475 patients treated for 6 months and 115 patients treated for over 1 year. The range of patient exposure is from 1 to 1,214 days. Treatment-emergent signs and symptoms that occurred during three placebo-controlled clinical trials and two open-label trials were recorded as adverse events by the clinical investigators using terminology of their own choosing. To provide an overall estimate of the proportion of individuals having similar types of events, the studies were integrated and the events were grouped into a smaller number of standardized categories using a modified *COSTART* dictionary and event frequencies were calculated across all studies. These categories are used in the listing below. The frequencies represent the proportion of 900 patients from these trials who experienced that event while receiving **ARICEPT**. All adverse events occurring at least twice are included. Adverse events already listed in Tables 2 and 3 are not repeated here (i.e., events occurring at an incidence >2%). Also excluded are *COSTART* terms too general to be informative, or events less likely to be drug caused. Events are classified by body system and listed as occurring in ≥1% and <2% of patients (i.e., in 1/100 to 2/100 patients: *frequent*) or in < 1% of patients (i.e., in 1/100 to 1/1,000 patients: *infrequent*). These adverse events are not necessarily related to **ARICEPT** treatment and in most cases were observed at a similar frequency in placebo-treated patients in the controlled studies. **Adverse Events Occurring in ≥1% and <2% or <1% of Patients Receiving ARICEPT:** ***Body as a Whole:*** (≥1% and <2%) influenza, chest pain, toothache; (<1%) fever, edema face, periorbital edema, hernia hiatal, abscess, cellulitis, chills, generalized coldness, head fullness, head pressure, listlessness. ***Cardiovascular System:*** (≥1% and <2%) hypertension, vasodilation, atrial fibrillation, hot flashes, hypotension; (<1%) angina pectoris, postural hypotension, myocardial infarction, premature ventricular contraction, arrhythmia, AV Block (first degree), congestive heart failure, arteritis, bradycardia, peripheral vascular disease, supraventricular tachycardia, deep vein thromboses. ***Digestive System:*** (≥1% and <2%) faecal incontinence, gastrointestinal bleeding, bloating, epigastric pain; (<1%) eructation, gingivitis, increased appetite, flatulence, periodontal abscess, cholelithiasis, diverticulitis, drooling, dry mouth, fever sore, gastritis, irritable colon, tongue edema, epigastric distress, gastroenteritis, increased transaminases, haemorrhoids, ileus, increased thirst, jaundice, melena, polydipsia, duodenal ulcer, stomach ulcer. ***Endocrine System:*** (<1%) diabetes mellitus, goiter. ***Hemic & Lymphatic System:*** (<1%) anaemia, thrombocythemia, thrombocytopenia, eosinophilia, erythrocytopenia. ***Metabolic and Nutritional Disorders:*** (≥1% and <2%) dehydration, (<1%) gout, hypokalemia, increased creatine kinase, hyperglycemia, weight increase, increased lactate dehydrogenase. ***Musculoskeletal System:*** (≥1% and <2%) bone fracture; (<1%) muscle weakness, muscle fasciculation. ***Nervous System:*** (≥1% and <2%) delusions, tremor, irritability, paresthesia, aggression, vertigo, ataxia, libido increased, restlessness, abnormal crying, nervousness, aphasia; (<1%) cerebrovascular accident, intracranial hemorrhage, transient ischemic attack, emotional lability, neuralgia, coldness (localized), muscle spasm, dysphoria, gait abnormality, hypertonia, hypokinesia, neurodermatitis, numbness (localized), paranoia, dysarthria, dysphasia, hostility, decreased libido, melancholia, emotional withdrawal, nystagmus, pacing, seizures. ***Respiratory System:*** (≥1% and <2%) dyspnea, sore throat, bronchitis; (<1%) epistaxis, postnasal drip, pneumonia, hyperventilation, pulmonary congestion, wheezing, hypoxia, pharyngitis, pleurisy, pulmonary collapse, sleep apnea, snoring. ***Skin and Appendages:*** (≥1% and <2%) abrasion, pruritus, diaphoresis, urticaria; (<1%) dermatitis, erythema, skin discoloration, hypokeratosis, alopecia, fungal dermatitis, herpes zoster, hirsutism, skin striae, night sweats, skin ulcer. ***Special Senses:*** (≥1% and <2%) cataract, eye irritation, blurred vision; (<1%) dry eyes, glaucoma, earache, tinnitus, blepharitis, decreased hearing, retinal hemorrhage, otitis externa, otitis media, bad taste, conjunctival hemorrhage, ear buzzing, motion sickness, spots before eyes. ***Urogenital System:*** (≥1% and <2%) urinary incontinence, nocturia; (<1%) dysuria, hematuria, urinary urgency, metrorrhagia, cystitis, enuresis, prostate hypertrophy, pyelonephritis, inability to empty bladder, breast fibroadenosis, fibrocystic breast, mastitis, pyuria, renal failure, vaginitis. ***Long-Term Safety:*** Patients were exposed to **ARICEPT** in two open-label extension studies (n=885) of over two years. In one of the studies, 763 patients who previously completed one of two placebo-controlled studies of 15 or 30 weeks duration continued to receive **ARICEPT** and were evaluated for safety and neuropsychological evaluations for up to 152 weeks; the safety profile of **ARICEPT** in this extension study remained consistent with that observed in placebo-controlled trials. Following one and two years of treatment, 76% (n=580) and 49% (n=374) of these patients, respectively, were still receiving therapy (cumulative weeks 48 and 108). ***Postmarketing Reports:*** Voluntary reports of adverse events temporally associated with **ARICEPT** that have been received since market introduction that are not listed above, and that there is inadequate data to determine the causal relationship with the drug include the following: abdominal pain, agitation, cholecystitis, confusion, convulsions, hallucinations, heart block (all types), hemolytic anemia, hepatitis, hyponatremia, pancreatitis, and rash. **DOSAGE AND ADMINISTRATION *ARICEPT*** (donepezil hydrochloride) tablets should only be prescribed by (or following consultation with) clinicians who are experienced in the diagnosis and management of Alzheimer's disease. The recommended initial dose of **ARICEPT** is 5 mg taken once daily. Therapy with the 5 mg dose should be maintained for 4-6 weeks before considering a dose increase, in order to avoid or decrease the incidence of the most common adverse reactions to the drug (see **ADVERSE REACTIONS** Section) and to allow plasma levels to reach steady state. For those patients who do not respond adequately to the 5 mg daily dose after 4 -to- 6 weeks of treatment, the 10 mg daily dose may then be considered. The maximum recommended dose is 10 mg taken once daily. Following initiation of therapy or any dosage increase, patients should be closely monitored for adverse effects. Adverse events are more common in individuals of low body weight, in patients ≥ 85 years old and in females. It is recommended that **ARICEPT** be used with caution in elderly women of low body weight and that the dose should not exceed 5 mg/day. **ARICEPT** should be taken once daily in the evening, before retiring. For patients experiencing insomnia, **ARICEPT** may be taken in the morning. It may be taken with or without food. In a population of cognitively-impaired individuals, safe use of this and all other medications may require supervision. **AVAILABILITY OF DOSAGE FORMS ARICEPT** is supplied as film-coated tablets containing 5 mg (white tablets) or 10 mg (yellow tablets) of donepezil hydrochloride. The name **ARICEPT** and the strength are embossed on each tablet. **ARICEPT** is available in high density polyethylene (HDPE) bottles of 30 tablets and in blister strips boxed as 28 tablets (combination of 2 strips of 14 tablets).

Product Monograph available upon request.

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25 Years Ago in the Canadian Journal of Neurological Sciences

Pathology of the Heart in Friedreich's Ataxia: Review of the Literature and Report of One Case

G. Sanchez-Casis, M. Cote and A. Barbeau

SUMMARY: A single case of typical Friedreich's ataxia was analyzed for cardiac changes and compared to the findings from the literature. Macroscopically, there was a cardiomegaly with some degree of ventricular hypertrophy and probable mild dilatation of the auricles. The more important and constant histologic changes were myocardial fibrosis and degeneration of the cardiac muscle cells. Granular deposits of calcium salts and iron were found in the muscle cells. A cardiomyopathy hypertrophic in type and occasionally obstructive appears to be an integral part of Friedreich's ataxia.

Can. J. Neurol. Sci. 1976;4:349

Clinical Laboratory Findings in Friedreich's Ataxia

R.F. Butterworth, D. Shapcott, S. Melançon, G. Breton, G. Geoffroy, B. Lemieux and A. Barbeau

SUMMARY: All clinical laboratory tests carried out in four groups of patients with the diagnosis of typical or atypical Friedreich's ataxia have been found to be within the normal range. In this prospective study of 50 patients, a number of findings previously reported to be abnormal in the literature, have not been confirmed.

Can. J. Neurol. Sci. 1976;4:355

Glucose and Insulin Metabolism in Friedreich's Ataxia

D. Shapcott, S. Melançon, R.F. Butterworth, K. Khoury, R. Collu, G. Breton, G. Geoffroy, B. Lemieux and A. Barbeau

SUMMARY: Our prospective survey of 50 ataxic patients confirms the previous finding of frequent clinical or chemical diabetes in Friedreich's ataxia. Eighteen percent of our typical cases have clinical diabetes and 40% at least an abnormal glucose tolerance curve. However, this finding does not appear to be specific to that form of ataxia. Furthermore, we have shown that most patients with ataxia have normal or low fasting insulin levels, but a hyperinsulinic response to a glucose load.

Can. J. Neurol. Sci. 1976;4:361

Bilirubin Metabolism – Preliminary Investigation

A. Barbeau, G. Breton, B. Lemieux and R.F. Butterworth

SUMMARY: In our studies, high total bilirubin values in the plasma were noted in cases of Friedreich's ataxia. A bimodal distribution of the values indicated the possible presence of two subgroups of patients. In these kindred, we demonstrated an elevation in unconjugated bilirubin with features similar to those reported in Gilbert's syndrome: normal liver function tests, elevation after fasting and day to day variability. We also report preliminary experiments indicating that bilirubin levels may be taurine dependent. We postulate that the defect could be a secondary component of the ataxic disease, possibly indicating a defect in membrane transport.

Can. J. Neurol. Sci. 1976;4:365

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Pour documentation voir pages A-38, A-39

25 Years Ago in the Canadian Journal of Neurological Sciences

Amino Acid Metabolism in Friedreich's Ataxia

B. Lemieux, A. Barbeau, V. Beroniade, D. Shapcott, G. Breton, G. Geoffroy and S. Melançon

SUMMARY: A study of amino acids determined by sequential Multi-sample Amino Acid Automatic Analyzer in plasma, urine and cerebrospinal fluid (CSF) in patients with Friedreich's ataxia and control subjects has revealed a number of mathematically significant variations from normal. Of practical physiological importance are the following: a high urinary excretion of alanine with slightly elevated plasma levels; a low plasma and CSF concentration of aspartic acid in the presence of normal urinary values and finally, a low CSF concentration of taurine accompanied by normal plasma levels, but elevated urinary output and renal clearance rates. We postulate that the modifications in alanine and aspartic acid are less specific and probably secondary, but there could be a genetic defect in the membrane transport of taurine and the other β-amino acids in Friedreich's ataxia.

Can. J. Neurol. Sci. 1976;4:373

Clinical Laboratory Findings in Friedreich's Ataxia

R.F. Butterworth, D. Shapcott, S. Melançon, G. Breton, G. Geoffroy, B. Lemieux and A. Barbeau

SUMMARY: All clinical laboratory tests carried out in four groups of patients with the diagnosis of typical or atypical Friedreich's ataxia have been found to be within the normal range. In this prospective study of 50 patients, a number of findings previously reported to be abnormal in the literature, have not been confirmed.

Can. J. Neurol. Sci. 1976;4:355

Pyruvate Metabolism in Friedreich's Ataxia

A. Barbeau, R.F. Butterworth, T. Ngo, G. Breton, D. Shapcott, S. Melançon, G. Geoffroy and B. Lemieux

SUMMARY: Friedreich's ataxia patients show evidence of an abnormally elevated and prolonged response of pyruvate and lactate to a glucose load, with normal fasting levels. However, there is a bimodal distribution of this response with high and low pyruvate responders. This trait appears to be determined genetically. However, although *in vivo* tests suggest low oxidation of pyruvate, we were unable to confirm any *in vitro* impairment of each of the components of the pyruvate dehydrogenase (PDH) complex. We conclude that the defect is in the metabolic regulation of PDH, probably at the E_3 (lipoamide dehydrogenase) step.

Can. J. Neurol. Sci. 1976;4:379

Friedreich's Ataxia 1976 – an Overview

A. Barbeau

SUMMARY: The prospective investigation of 50 cases of possible Friedreich's ataxia has permitted the clinical and biochemical delineation of the typical disease and an hypothesis on its pathogenesis. A tentative definition of the disorder could read: "Friedreich's ataxia is a progressive degenerative disease always inherited in an autosomal recessive fashion and characterized by a cardiomyopathy and a ganglioneuropathy with dying back phenomenon. It is probably secondary to a defect in the membrane transport of taurine and β-alanine and/or a defect in the regulation of pyruvate oxidation." The existence of two pathogenetically distinct entities with the same phenotype is a strong possibility.

Can. J. Neurol. Sci. 1976;4:389

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‡ Hoehn and Yahr stages I-II †† A 6 month interim analysis of a 5-year, double-blinded, randomized, multicenter study of patients with early Parkinson's disease. N = 268:179 patients received ropinirole and 89 received L-dopa. The mean daily dose was 9.7 mg and 464.0 mg respectively. There was no difference in Clinical Global Improvement scale in patients with Hoehn and Yahr stages I-II although L-dopa showed improvement in a greater proportion of patients with more severe disease. The proportion of responders was 58% in the L-dopa group and 48% in the ropinirole group: this was not of statistical significance. ††† In early therapy, the respective incidences of dyskinesia in early therapy of patients receiving ropinirole was 1.2% and of patients receiving L-dopa was 11.2%. Meta analysis, n = 1364, 17 months. Nausea (39.1%), somnolence (12.3%) and insomnia (12.3%) were the most common side effects of ReQuip therapy. Six percent of ropinirole patients and nine percent of L-dopa patients had at least one psychiatric symptom (confusion, hallucinations, or delusions).

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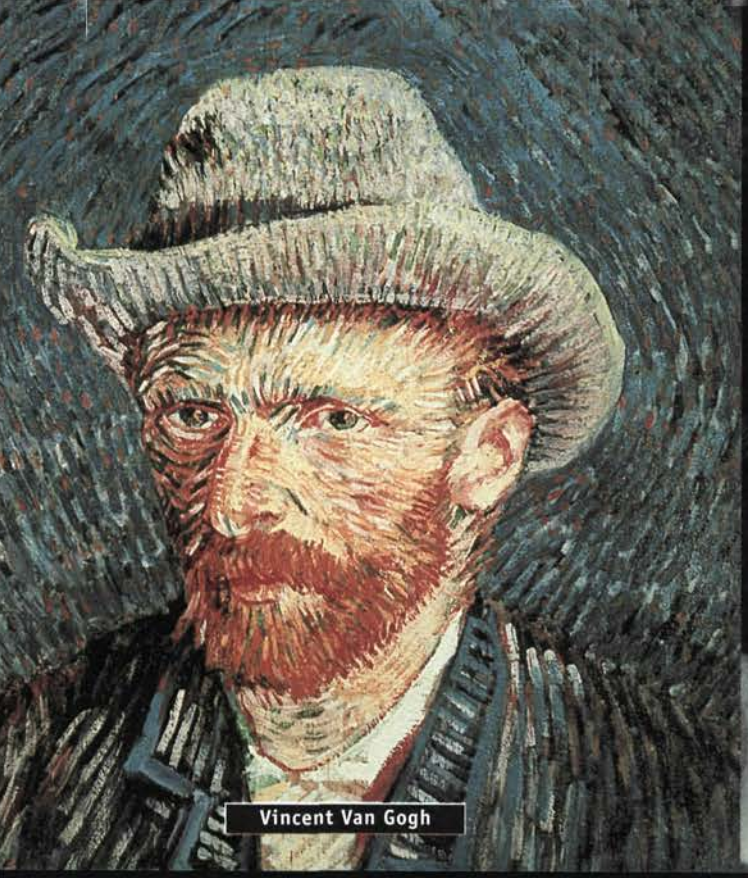
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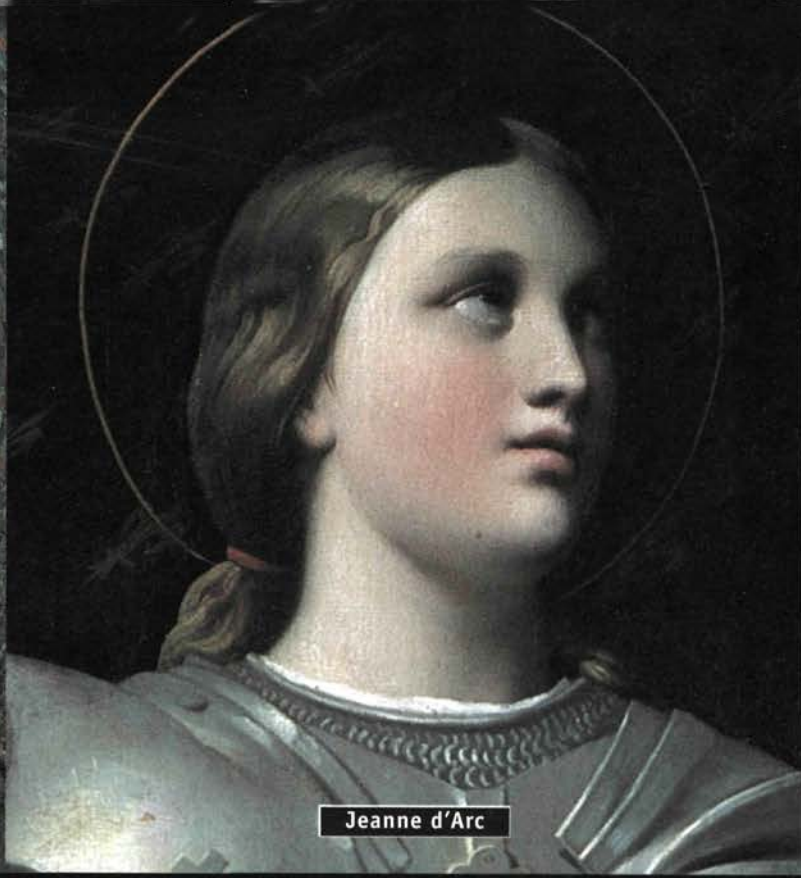
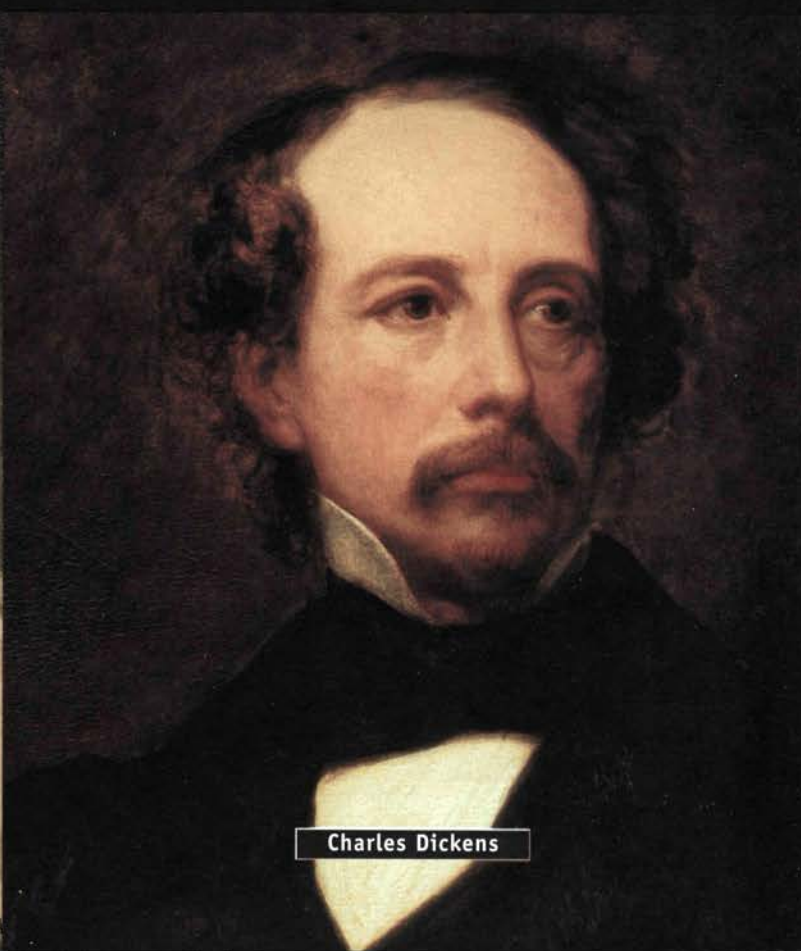

Jeanne d'Arc

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


Sir Isaac Newton


Charles Dickens

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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-Gastaut[1]
- Des résultats souhaitables avec absence totale de crises chez 19 % des adultes† et 22 % des enfants‡ 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 passagère§[1]

IL EST POSSIBLE QUE LES PATIENTS ADULTES SUBISSENT UNE PERTE DE POIDS.

- 73 % (n = 52) des patients ont subi une perte de poids de 5,97 lb en moyenne (Analyse provisoire. Durée moyenne de 60 jours)[4]
- 96 % des enfants traités dans le cadre des essais cliniques pendant au moins un an et ayant subi une perte de poids ont repris du poids au cours de la période d'exécution des essais**[1]

AUJOURD'HUI, IL Y A TOPAMAX.

UNE POSOLOGIE BIQUOTIDIENNE POUR TENIR COMPTE DU PATIENT.

- Le traitement par TOPAMAX peut être commencé et ajusté selon la réponse clinique quel que soit le traitement anticonvulsivant en cours
- Les comprimés sont inscrits au formulaire††

MAINTENANT OFFERT EN CAPSULES À SAUPOUDRER

TOPAMAX* topiramate

MAINTENANT INDIQUÉ CHEZ L'ENFANT

POUR AIDER LES PATIENTS À MIEUX PROFITER DE LA VIE

Comprimés et capsules à saupoudrer ℞*TOPAMAX** *(topiramate) : indiqués comme traitement adjuvant chez les patients (adultes et enfants âgés de deux ans ou plus) atteints d'épilepsie dont l'état n'est pas maîtrisé de façon satisfaisante avec le traitement traditionnel. Les renseignements sur l'emploi du topiramate en monothérapie sont encore limités[1].*

†Une étude ouverte d'une durée de 20 semaines (n = 450 adultes). Posologie optimale : 300 à 350 mg/jour (moyenne : 288 mg/jour).
‡Étude ouverte portant sur des enfants (n = 72) traités pendant au moins 3 mois. Posologie moyenne : 10 mg/kg/jour.
§Manifestations indésirables liées au SNC : Somnolence (30,1 %), étourdissements (28,3 %), ataxie (21,2 %), troubles de la parole (16,8 %), ralentissement psychomoteur (16,8 %), nystagmus (15 %), paresthésie (15 %), nervosité (15,9 %), difficulté à se concentrer/troubles de l'attention (8 %), confusion (9,7 %), dépression (8 %), anorexie (5,3 %), problèmes de langage (6,2 %) et troubles de l'humeur (3,5 %). Une évaluation de 1 446 adultes et 303 enfants a indiqué que ces deux groupes semblent présenter des profils de manifestations indésirables similaires.
**Les effets à long terme d'une perte de poids chez les enfants ne sont pas connus.
††Médicament à usage limité : Ontario, Nouvelle-Écosse, Nouveau-Brunswick, Î.-P.-É. Remboursement intégral : Québec, Saskatchewan, Colombie-Britannique, Alberta, Manitoba.
Veuillez vous reporter aux Renseignements thérapeutiques sur TOPAMAX pour les détails thérapeutiques complets.

RÉFÉRENCES : **1.** Monographie des comprimés et capsules à saupoudrer TOPAMAX* (topiramate), 11 mai 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.

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Pour documentation voir pages A-36, A-37

25 Years Ago in the Canadian Journal of Neurological Sciences

Transient Monocular Blindness

R.T. Ross

Summary: This paper is a review of the causes of intermittent monocular blindness. The nature of cholesterol and platelet retinal emboli is discussed. Their sources, the frequency with which they may cause transient or fixed blindness and the association between these emboli and pathology of the major cerebral vessels and other organs is discussed.

Consideration is given to the equally important abnormalities of platelet behaviour and to some of the physiology of retinal blood flow and nonembolic blindness.

The current treatment of this symptom may be anticoagulation, surgical correction of a stenotic artery or both. The effect of treatment is unpredictable and, in some situations, the rationale is suspect.

This review may provide a summary on which to base future studies of the effectiveness of various therapeutic agents.

Can. J. Neurol. Sci. 1977;3:143

The Role of Cyclic Nucleotides in the CNS

John W. Phillis

Summary: On the basis of the information presented in this review, it is difficult to reach any firm decision regarding the role of cyclic AMP (or cyclic GMP) in synaptic transmission in the brain. While it is clear that cyclic nucleotide levels can be altered by the exposure of neural tissues to various neurotransmitters, it would be premature to claim that these nucleotides are, or are not, essential to the transmission process in the pre- or post-synaptic components of the synapse. In future experiments with cyclic AMP, it will be necessary to consider more critically whether the extracellularly applied nucleotide merely proves a source of adenosine and is thus activating an extracellularly located adenosine receptor, or whether it is actually reaching the hypothetical sites at which it might act as a second messenger. The application of the cyclic AMP by intracellular injection techniques should minimize this particular problem, although possibly at the expense of new difficulties. Prior blockade of the adenosine receptor with agents such as theophylline or adenine xylofuranoside may also assist in the categorization of responses to extracellularly applied cyclic AMP as being a result either of activation of the adenosine receptor or of some other mechanism. Ultimately, the development of highly specific inhibitors for adenylate cyclase should provide a firm basis from which to draw conclusions about the role of cyclic AMP in synaptic transmission. Similar considerations apply to the actions of cyclic GMP and the role of its synthesizing enzyme, guanylate cyclase.

The use of phosphodiesterase inhibitors in studies on cyclic nucleotides must also be approached with caution. The diverse actions of many of these compounds, which include calcium mobilization and block of adenosine uptake, could account for many of the results that have been reported in the literature.

Can. J. Neurol. Sci. 1977;3:153

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*Comparative clinical significance unknown

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For brief prescribing information see pages A-34, A-35

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Behaviour and other parameters of global functioning assessed on the CIBIC-Plus were significantly improved vs. placebo ($p<0.05$).[2,§]

Cognitive function was maintained or enhanced by a mean difference of almost 5 points vs. placebo on the ADAS-Cog ($p<0.001$).[3,¶]

Now, EXELON can help many of your patients with Alzheimer Disease look forward to staying at home a while longer.

EXELON (rivastigmine as the hydrogen tartrate salt) is indicated for the symptomatic treatment of mild to moderate dementia of the Alzheimer type.

The most common side effects associated with EXELON therapy are generally mild and of short duration, occur mainly in the titration phase, and usually subside with continued treatment. During maintenance therapy, the most common side effects at doses of 6-12 mg/day were nausea (15%), vomiting (14%) and dizziness (10%).

EXELON has not been studied in controlled clinical trials for longer than 6 months. There is no evidence that rivastigmine alters the course of the underlying dementing process.

† Comparative clinical significance has not been established
†† Based on EXELON dosages of 6-12 mg/day
‡ Double-blind, randomized, placebo-controlled, international multicentre clinical trial; n=725. PDS=Progressive Deterioration Scale.
§ Pooled results from three prospective, randomized, double-blind, placebo-controlled, international multicentre clinical trials; n=2126. CIBIC-Plus=Clinician Interview-Based Impression of Change Scale.
¶ Prospective, randomized, double-blind, placebo-controlled, clinical trial; n=699. ADAS-Cog= Alzheimer Disease Assessment Scale, Cognitive Subscale.

1. Rösler M, Anand R, Cicin-Sain A, et al. BMJ 1999;318:633-40.
2. Schneider LS, Anand R, Farlow MR. Intl J Ger Psychopharm 1998;Suppl(1):S1-S34.
3. Corey-Bloom J, Anand R, Veach J. Intl J Ger Psychopharm 1998;1:55-65.
4. Exelon Product Monograph, April 13, 2000, Novartis Pharmaceuticals Canada Inc.

Product Monograph available upon request.

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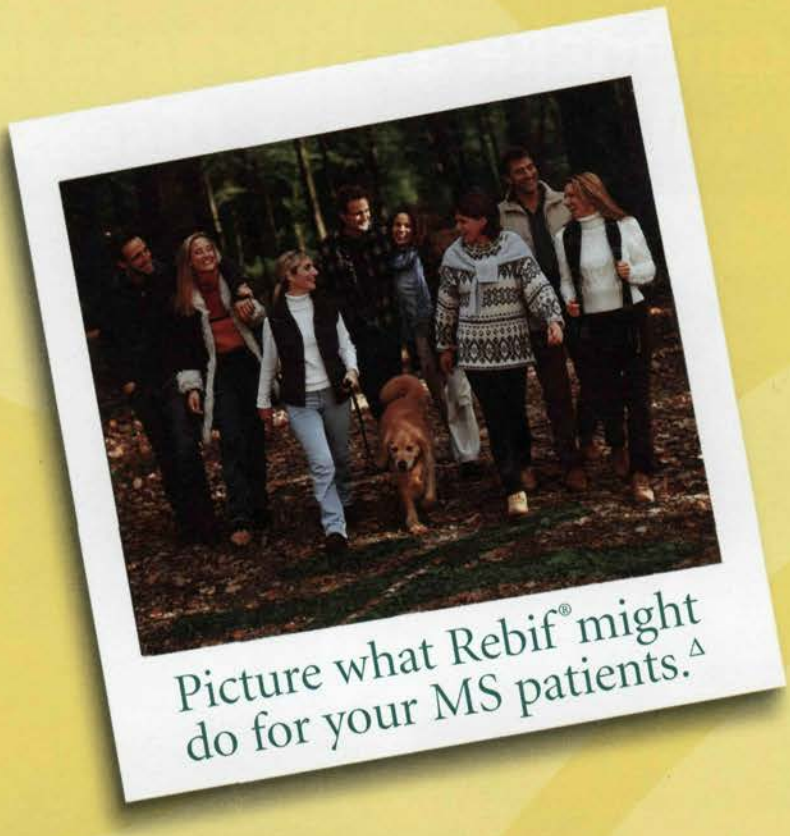

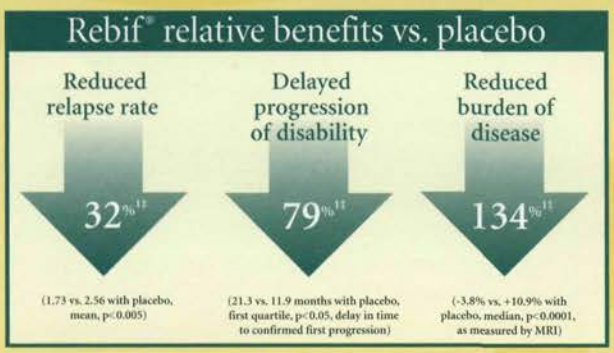

Results of the 44 mcg TIW dose at 2 years.[1]

In two pivotal studies, including a total of 628 patients, Rebif showed significant efficacy in three major outcomes (relapses, disability progression and MRI).[1,2]

Its ability to affect the course of the disease[2] has made Rebif not only a good first-line choice for relapsing-remitting MS, but the leading drug in its class.[3]

Rebif is generally well-tolerated. The most common adverse events are often manageable and decrease in frequency and severity over time.[2†]

Rebif alters the natural course of relapsing-remitting MS.[2]

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. The efficacy of Rebif has been confirmed by T_1–Gd enhanced and T_2 (burden of disease) MRI evaluations.[2]

† The most common adverse events reported are injection-site disorders (all) (92.4% vs. 38.5% placebo), upper respiratory tract infections (74.5% vs. 85.6% placebo), headache (70.1% vs. 62.6% placebo), flu-like symptoms (58.7% vs. 51.3% placebo), fatigue (41.3% vs. 35.8% placebo) and fever (27.7% vs. 15.5% placebo). Evidence of safety and efficacy derived from 2-year data only. Please see product monograph for full prescribing information.[2]

‡ Randomized, double-blind, placebo-controlled trial. Rebif 44 mcg TIW group (n=184), Rebif 22 mcg TIW group (n=189), placebo group (n=187).[1]

Δ Fictitious case may not be representative of results for the general population.

PAAB

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