**RIVASTIGMINE** *(also known as EXELON™ and NOVO- or TEVA-RIVASTIGMINE)*

**The purpose of this medication:**
Rivastigmine is one of a group of drugs called “cholinesterase inhibitors” which is used to treat symptoms in people with mild to moderate Alzheimer’s disease.

In the brains of people with Alzheimer’s disease there is a progressive degeneration of nerve cells, particularly of the cells that make acetylcholine, a chemical important for learning and memory. Because of this, people with Alzheimer’s disease have lower brain levels of acetylcholine. Rivastigmine works by reducing the breakdown of acetylcholine and thus increasing the amount of the chemical in the brain.

It has also been suggested, based on data from animal experiments, that the medication enhances the action of acetylcholine by making the receptors it interacts with in the brain more responsive. In the region of the brain first affected by Alzheimer’s disease, that dealing with cognition and memory, too little acetylcholine is available at the junctions between nerve cells to get messages across to the next nerve cell. The situation is helped, therefore, not only by preserving the acetylcholine from being destroyed by cholinesterase, but by making the receptors more responsive to the lower amounts of acetylcholine. Whether this effect is also true for humans is unknown.

The potential beneficial effect of rivastigmine could lessen as the disease progresses and when fewer cells are available to make acetylcholine.

Ongoing research is finding that combining cholinesterase inhibitors (such as rivastigmine, extended release galantamine hydrobromide or Aricept) together with memantine (a drug used to relieve the symptoms of people with moderate to severe Alzheimer’s disease) seems to improve outcomes, sometimes more than predicted from the effects of either drug alone. However, more and larger drug trials are needed to confirm these promising early results.

**How does it help?**
Rivastigmine is intended to treat symptoms in people with mild to moderate Alzheimer’s disease. In clinical trials, some individuals who took the drug, compared to individuals who took a placebo (a substance which looks like the drug but has no effect), showed some improvement or a slowing of the decline in cognition (including memory, orientation and language) and global functioning (for example, the performance of daily activities such as bathing, dressing and eating).

This medication may take as long as 12 weeks to begin working and individual response to this medication will vary.
Will this medication cure Alzheimer’s disease?
Rivastigmine is not a cure for Alzheimer’s disease as it does not affect the underlying degenerative process of the disease.

Who should take this medication?
The medication is approved for people who have been diagnosed with mild to moderate Alzheimer’s disease. The use of rivastigmine is not advised by Health Canada outside of its approved indication.

How do you obtain this medication?
Rivastigmine can only be obtained with a prescription from a doctor after a diagnosis of Alzheimer’s disease has been made. There may be other generic brands of rivastigmine available. Please check with your doctor or pharmacist.

A reminder: This medication has been prescribed only for you or for the person you are caring for. It must not be given to anybody else or used for any other illness.

Important! Things to know before taking this medication:
You should tell your doctor if you are taking any other medications. You should also tell your doctor if you have other medical problems, such as conditions affecting your heart or lungs; if you have seizures; if you have had fainting spells; if you have a low body weight (less than 50 kg); if you have, or ever had difficulties in passing urine; if you have, or ever had liver or kidney problems; if you have, or ever had inflammation of the pancreas; if you are pregnant, planning on becoming pregnant, or breast feeding; if you suffer from trembling; if you experience gastrointestinal reactions such as severe nausea, vomiting and diarrhea; and if you have a history of peptic ulcers or have increased risk of developing ulcers (for example you are taking non-steroidal anti-inflammatory drugs [NSAIDs] or high doses of acetylsalicylic acid [ASA/Aspirin]). Your doctor will determine whether you can take rivastigmine and how closely you will need to be monitored.

How do you take this medication?
• Take only as prescribed by your doctor. Never change the dose yourself.
• To benefit from your medication you must take it every day.
• If at anytime you stop taking the medication for longer than several days, do NOT restart treatment without contacting your doctor.
• If you have problems remembering to take medication, it may be necessary to have someone manage it for you.

Capsules:
• This medication should be taken with food. Swallow the capsules whole with a drink, without opening or crushing them.
• You must take the medication twice a day, once with your breakfast and once with your evening meal.
• If you find you have forgotten to take your dose, do not worry. Wait and take the next dose at the usual time. Do NOT take two doses at once.
• Your doctor will tell you what dosage to take, starting with a low dose and gradually increasing (to the best-tolerated dose), depending on how you respond to the treatment. The highest dose that should be taken is 6 mg twice a day.
**Exelon Patch:**
- Exelon Patch should be applied to the upper back, lower back, chest or upper arm and should be replaced with a new patch every 24 hours. The time of day used should be kept consistent.
- If you find you have forgotten to apply your Exelon Patch, apply a new patch immediately. You may apply the next patch at the usual time the next day, after removing the previous day’s patch. Do not apply two patches to make up for the one that you missed. ONLY ONE patch should be worn at a time.
- Your doctor will tell you what dosage to take, starting with a low dose (Exelon Patch 5 – 4.6mg/24h) and gradually increasing (to the best-tolerated dose, after a minimum of four weeks of treatment), depending on how you respond to the treatment (Exelon Patch 10 – 9.6mg/24h).

**What are the possible side effects?**

**Capsules:**
Along with its beneficial effect, rivastigmine may cause some undesirable reactions. In clinical studies most side effects were mild to moderate in intensity. Caregivers and those taking the medication should be advised that it is associated with a high incidence of nausea and vomiting along with the possibility of anorexia (loss of appetite) and weight loss. Caregivers should be encouraged to monitor these adverse events and inform the doctor if they occur.

Common side effects, in addition to nausea, vomiting, loss of appetite and weight loss, include diarrhea, heartburn, stomach pains, dizziness, headache, weakness and fatigue. Some people also experienced fainting. This list is not exhaustive. Side effects are most likely to occur after an increase in dose and may go away with continued treatment. If they persist, however, you should tell your doctor. If you feel unwell or have any symptoms that you do not understand, or find distressing, you should contact your doctor immediately.

**Exelon Patch:**
Transdermal patches are designed to provide continuous delivery of drug through the skin more directly into the bloodstream than medications taken by mouth. The steady drug levels in the bloodstream may reduce the likelihood of side effects and increase the chances of the person getting the appropriate dose. Exelon Patch may be of particular benefit to people who are susceptible to gastrointestinal problems. In addition, patches may help physicians, family members and caregivers to see that the medication has been taken. In controlled clinical trials, there were three times fewer reports of nausea and vomiting when compared to the rivastigmine capsules.

Along with its possible beneficial effect, Exelon Patch may cause some undesirable reactions. In most cases, side effects will gradually disappear as your body becomes used to the medicine. The side effects reported included gastrointestinal reactions such as nausea and vomiting. The other common side effects are: loss of appetite, anxiety, difficulty in sleeping, dizziness, headache, diarrhea, stomach discomfort after meals, stomach pain, fatigue, weakness and weight loss. Skin reactions at the application site (redness, itching, irritation, swelling) were noted in some people. This list is not exhaustive. People with dementia and caregivers are encouraged to monitor these adverse events and inform the doctor if they occur.

If side effects persist, you should tell your doctor. If you feel unwell or have any symptoms that you do not understand, or find distressing, you should contact your doctor immediately.

**What to do if an overdose is taken:**
If more medication has been taken than what has been prescribed, contact either your doctor, hospital emergency department or nearest poison control centre immediately.
**How do you store this medication?**

- Do not use the medication after the expiry date shown on the bottle.
- Store the medication at room temperature (below 30º C).
- Keep the medication in a safe place and out of reach of children.
- Do not use any medication or patch that is damaged or shows signs of tampering.
- Keep Exelon Patch in the individual sealed pouch until just prior to use.

**How much does it cost and who pays for this medication?**

**Capsules:** The medication costs approximately $5.00 per day. It is covered for the treatment of mild to moderate Alzheimer’s disease under all ten provincial drug plans in Canada and through the Alzheimer’s Drug Therapy Initiative (ADTI) in British Columbia, provided that individuals meet specific clinical criteria for entitlement. The medication is also covered by most private insurance plans.

**Exelon Patch:** The price for the Exelon Patch is $4.29 per day. At the present time, the Exelon Patch is not covered under provincial drug plans except in Quebec as Medicament D’exception and in British Columbia as part of the ADTI program, provided individuals meet the eligibility criteria. Exelon Patch is covered by most private plans.

**Who produces this medication?**
The Exelon Patch is produced by Novartis Pharma Canada Inc., 385 Bouchard Blvd, Dorval, Quebec H9R 4P5.

**For further information:**
This information sheet is a brief description and summary of information about this medication. If you have any further questions about rivastigmine, ask your doctor or pharmacist.

The contents of this document are provided for information purposes only, and do not represent advice, an endorsement or a recommendation, with respect to any product, service or enterprise, and/or the claims and properties thereof, by the Alzheimer Society of Canada.