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“Hidden” Lactose May Aggravate Some Gastrointestinal Conditions

Lactose intolerance is a very common condition, estimated to affect 70% of the world's population. It is commonly confused with milk allergy which is an immune reaction to milk proteins affecting 20% of patients with symptoms of lactose intolerance. Lactose intolerance however varies between individuals and may change with age. It may be predetermined in some people by their ethnic or genetic background or caused by gastrointestinal disorders (e.g. celiac disease, Crohn's disease, irritable bowel disease), infections (e.g. rotavirus, Giardiasis, cryptosporidiosis, other parasites) or radiotherapy for cancer. People with lactose intolerance have a low level of the enzyme, lactase, which breaks down lactose in the body.

When lactose is ingested, it is normally broken down or hydrolysed in the small intestine by lactase and absorbed. In individuals with low lactase levels, more lactose reaches the large intestine where it is broken down by bacteria into gases (e.g. hydrogen and methane) and small peptides and toxins. These cause abdominal and systemic symptoms including stomach cramps, bloating, flatulence, diarrhea, muscle cramps and headache. Also, unabsorbed lactose raises the osmotic pressure in the colon, preventing water reabsorption and causing a laxative effect.

Lactose intolerance is more prevalent in South America, Africa, Asia and Sicily with an incidence greater than 50%. In the U.S. the prevalence is 15% among whites, 53% among Mexican-Americans and 80% in the Black population.

The hydrogen breath test after oral ingestion of lactose is the most commonly used test to detect lactose intolerance. Once it is identified in a patient and the patient's lactose sensitivity is determined, an appropriate diet with lactose restrictions is prescribed. However, often a “hidden” source of lactose ingestion may be overlooked, namely lactose-containing medications.

Lactose is a common excipient (or adjuvant) in many drug formulations and

may make up the main mass or volume of the drug product. Lactose is very widely used because it is perceived to be inert, relatively inexpensive and nontoxic. It is also chemically stable and has no tendency to react with the active ingredient or other components of a formulation. Finally, it is very palatable providing sweetness without any aftertaste.

The amount of lactose in a medication may be significant for some patients. Often it is a constituent of drugs used to treat gastrointestinal conditions. Patients may take multiple doses of several medications. When one tallies the total daily amount of lactose in a patient's medication regimen, it may be present in sufficient quantity to cause symptoms and affect compliance (depending on the individual's degree of sensitivity to lactose).

The CPS (Compendium of Pharmaceuticals and Specialties) lists lactose-containing drugs (but does not quantify the amount). The pharmaceutical manufacturer can be contacted to request the amount of lactose in each dose. Although lactose is a popular excipient, it is usually possible to select lactose-free medications. It may be as simple as changing the brand of the drug. Whenever possible such a product should be supplied to a patient who is highly sensitive to the effects of lactose.

Desipramine Warning ...

In an alert issued by the FDA (Food and Drug Administration) in the United States a label update was announced involving the tricyclic antidepressant desipramine (Norpramin). The update stated that desipramine “should be used with extreme caution in patients with a family history of sudden death, cardiac dysrhythmias, or cardiac conduction disturbances”. Seizures in patients taking desipramine may precede the cardiac effects and death.

Multifocal Glasses May Increase Falling Risk in the Elderly ...

A small Australian study found that multifocal lenses may present a blurred image and impaired depth perception when a person views an object on the ground. When participants paid attention to objects at eye level as they walked on a path, they were more likely to contact obstacles at ground level when wearing multifocal lenses than when wearing single lens glasses.



Abilify® (aripiprazole) 2, 5, 10, 15, 20 & 30 mg tablets (Bristol-Myers Squibb) (not currently a benefit of ODB)

Abilify is a new atypical antipsychotic drug indicated for the treatment of schizophrenia and related psychotic disorders and for the acute treatment of manic or mixed episodes in Bipolar I Disorder. When treating bipolar disorder it can be used alone or in combination with lithium or divalproex sodium if there is an insufficient response to these agents alone.

Abilify is described as a “dopamine-serotonin system stabilizer”. It is a partial agonist at dopamine receptors (unlike other antipsychotics which are antagonists of dopamine). Therefore when dopamine activity in a part of the brain is too high (which may result in hallucinations and delusions), Abilify can reduce dopamine activity by blocking dopamine. Conversely when dopamine activity in an area of the brain is low, Abilify can boost dopamine activity (which may help symptoms such as lack of emotion, energy, motivation, etc.).

Contraindications & Precautions:

- Abilify is **not** indicated in elderly patients with dementia psychosis (e.g. Alzheimer’s disease) due to increased risk of death.
- The safety of Abilify has not been established in pregnancy, labour and delivery, nursing women or in pediatric patients.
- Abilify may disrupt the body’s temperature regulating system. It should be used with caution in patients with elevated core body temperature (e.g. strenuous exercise, exposure to extreme heat, concomitant anticholinergics and dehydration).
- Abilify has been associated with orthostatic hypotension, tachycardia, dizziness and sometimes syncope. Use caution in patients with cardiovascular disease, cerebrovascular disease, patients being treated with antihypertensive drugs and in conditions which may predispose patients to hypotension (e.g. dehydration).
- It is not known if Abilify is associated with an exacerbation of pre-existing diabetes and hyperglycemia. Monitoring for symptoms of hyperglycemia is recommended (e.g. increased thirst, urination, appetite or weakness). Patients with risk factors for diabetes (e.g. obesity, family history) should undergo fasting blood glucose

testing prior to initiating therapy and periodically during treatment with Abilify. Patients with an established diagnosis of diabetes mellitus should be monitored regularly for worsening of glucose control.

- Abilify has been associated with Neuroleptic Malignant Syndrome.
- Patients treated with Abilify may develop tardive dyskinesia. If it occurs, discontinuation should be considered.
- Caution is recommended in patients with a history of seizures or conditions that lower the seizure threshold.
- Caution should be used if Abilify is used in patients with dysphagia due to the risk of developing aspiration pneumonia.

Drug Interactions: Abilify is metabolized by CYP3A4 and CYP2D6. The potential to reduce Abilify levels may occur with co-administration of a CYP3A4 inducer such as carbamazepine. Abilify levels may increase if co-administered with a CYP3A4 inhibitor (e.g. ketoconazole) or CYP2D6 inhibitors (e.g. fluoxetine, paroxetine).

Adverse Effects: The most commonly reported adverse effects in trials include akathisia, insomnia, somnolence, extrapyramidal disorder, weight gain, restlessness and mild tremor. There is a risk of hypotension early in therapy and when combined with antihypertensives.

Dose & Administration: In *schizophrenia* the dose is 10 or 15 mg once daily to a maximum of 30 mg/day. If necessary dose titrations should occur 2 weeks after initiation of therapy. In *bipolar disorder* the dose is 15 mg once daily to a maximum of 30 mg daily (as monotherapy or with lithium or divalproex sodium). Abilify is taken without regard to meals.

Availability: Abilify is available as a modified rectangle tablet in strengths of 2 mg (green), 5 mg (blue), 10 mg (pink), and as round tablets in strengths of 15 mg (yellow), 20 mg (white) and 30 mg (pink).

(Refer to the product monograph for complete information)

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