

Patient Profile for Huntington, Eloise Clay

General Information

ID: ecb03012012
Prescriber: Nardel Teimer M.D.
Name: Huntington, Eloise Clay
Address: 4958 Effingham Road
City/State/Zip: Grapevine, TX 43456
Country: USA
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Current Conditions

- benign familial tremor
 - depression
 - females
 - insomnia
 - nutritional supplementation
 - osteoporosis prophylaxis
 - Parkinson's disease
 - psychotic depression
 - renal impairment
 - stroke prophylaxis
-

Current Allergies

No allergies noted

Current Medications

- Medication
 - Artane® Dosage: 1mg Sig: 1 to 3 times a day
 - Ativan® Dosage: 0.5gm Sig: at bedtime for sleep
 - Azilect® Dosage: 1 mg Sig: daily
 - Citracal® PlusD Dosage: 250mg Sig: daily
 - Coenzyme Q10 Dosage: Sig: daily
 - Low Dose Adult Aspirin Dosage: 81 mg Sig: daily
 - Premarin® Dosage: Cream 0.625mg Sig: apply to face daily
 - Requip® Dosage: 4mg Sig: daily
 - Vitamin E Dosage: 400 U Sig: two daily
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Dosing Parameters

Gender: Female
Birthdate: 7/11/1942
Weight: 61.36 kgs
Height: 152.4 cm
Ideal Body Weight: 49.94 kgs
Body Surface Area: 1.61 m²
Serum Creatinine: 0.75 mg/dL
Creatinine Clearance: 41.86 mL/min

Notes

Title: Initial Interview & Assessment

Date: 03/05/2012

This 70 year old white female presents with tremors in her right hand and arm, is being treated for Parkinson's Disease and has severe paranoia, hallucinations and insomnia. She presents to me in a very hostile paranoid attitude and expresses this degree of mistrust throughout our interview. This interview started many months ago since she had refused to get the appropriate laboratory blood work needed to complete my evaluation but then changed her mind and had the lab work done. She also has the mistrust feelings along with occasional episodes of hostility to family members. Her calculated Creatinine Clearance is 42cc/min which shows a degree of renal impairment to justify concern in her current drug therapy. She is currently on two dopamine agonists (Requip & Azilect) for the Parkinson's, but upon a movement disorder assessment did not indicate any cogwheel movements in any of her extremities. She does have a family history of tremors with this being a problem with her parents and grandparents. She also is taking a strong anticholinergic drug (Artane) which is not indicated in her age group, renal impairment, and mental status. Requip (Ropinirole) should be used cautiously in patients with preexisting psychosis.

Hallucinations have been reported in patients receiving ropinirole alone. The incidence of hallucinations is increased in geriatric patients as well as during concurrent use of ropinirole with other dopaminergic agents. Additionally, using concomitantly with Azilect (rasagiline) when used as an adjunct to another dopamine agonist, rasagiline, may potentiate dopaminergic side effects and exacerbate pre-existing dyskinesia, involuntary movements or hallucinations. Treatment emergent dyskinesia occurred in about 18% of patients treated with 0.5 mg or 1 mg rasagiline as an adjunct to dopamine enhancers. Elderly patients may be at greater risk for treatment-emergent adverse cardiovascular and psychiatric effects. Evaluation of her current depression consistent with the Short Geriatric Scale showed a score of 7 which indicates a high degree of depression which always includes equal scores in anxiety and thus causing insomnia. She has been taking Ativan for sleep which is not recommended in this age patient. The problem is that the psychotic episodes need to be stopped if possible. Consistent with my practice this age group should not use dopamine agonists at all and the above conditions are usually expected. A trial of a very slow taper of these two dopamine agonists are needed to determine if she truly has Parkinson's Disease has the Benign Familial Tremors consistent with her family history. The patient also uses Premarin (Estrogen) cream which she applies to her face daily. Estrogens of any type are totally contraindicated in this age female. Nervous system and mood disturbances occur in some women taking conjugated estrogens. These changes can include mental depression (5–7%), dizziness (1–7%), fatigue or asthenia (1.4–8%), nervousness or anxiety (2–5%) or insomnia (2.9–7%). Paresthesias (0–6%) and central nervous system events (<5%) include chorea, emotional lability, irritability, exacerbation of epilepsy, and dementia have been reported. She needs to start on an

SSRI/SNRI (Venlafaxine ER) in an attempt to reduce the paranoia and hostility precipitated by the current drug therapy. I am hopeful that stopping the dopamine agonists, estrogen and anticholinergic drugs will stop this psychotic condition without having to move into more psychotropic therapeutic alternatives. She is taking other drugs: Low Dose Aspirin, Calcium Citrate with D,Vitamin E and Coenzyme Q10 which will be adjusted but do not play into these current problems. An analysis will be listed below. Review of the patient's lipids profile show a slight elevation in the Cholesterol of 254 and an elevated LDL 137 both of which are negated by an excellent HDL of 99. This high HDL places her risk for cardiac problems at a very low 1.4 ratio. With a Serum B12 value of 335pg/mL I do suggest using supplement Vitamin B12 to increase her serum levels. Folic Acid should also accompany the B12. Also, in review of the labs the patient has a high serum Calcium 10.4mg/dL which should be monitored and if this continues to be elevated it should be assessed by a endocrinologist for any Parathyroid problems. This can be addressed in 90 days after another complete round of chemistry assessments.

Additionally for the physician's analysis and support of each statement made in this report, there is a page of references to substantiate all findings and recommendations.

Title: Drug Therapy Evaluation & Recommendations

Date: 03/05/2012

Review of the drug therapy currently prescribed resulted in the following problem areas:

Requip - ropinirole, a dopamine agonist is not recommended in the geriatric patient and in patients with renal impairment ($\text{CrCl} = 42\text{cc/min}$). Many of the adverse side effects are consistent with this patient's behavior and a very slow taper is recommended to go from this very high dose of 4mg now to discontinuance

Azilect - rasagiline, another dopamine agonist, makes exacerbation of the psychotic disorders more prominent and uncontrollable. Rasagiline should be used with caution in patients with a history of psychosis or psychotic disorders (e.g., schizophrenia). Hallucinations have been reported in both monotherapy trials (1.3%) and during use of rasagiline as adjunct therapy to levodopa (4–5%). Post-marketing reports indicate that rasagiline may cause or exacerbate psychotic-like behavior (e.g., paranoia, confusion, psychotic disorder, agitation, delusion, hallucinations). This effect has been associated with the use of agents that increase central dopaminergic activity.

Premarin Cream - (estrogens) Hormone replacement therapy (HRT), both estrogen/progestin combination therapy and estrogen alone therapy, has been found to fail to prevent mild cognitive impairment (memory loss) and to increase the risk of dementia in women 65 years and older. Potential risk increase of stroke is seven fold and makes continued use contraindicated.

Ativan – a benzodiazepine drug which is not recommended in the older patient due to residual effects that lead to falls. Taking the Venlafaxine ER should resolve any sleep problems and stop the need for this drug.

Drug Therapy Management

Stop the following drugs completely:

Artane 1mg (take every other day for 10 days and discontinue completely)

Requip 4mg (using tapering schedule found with the Venlafaxine ER drug therapy)

Azilect 1mg (using the tapering schedule found with the Venlafaxine ER schedule)

Premarin Cream taper (apply once a week x 6 weeks then discontinue completely)

Coenzyme Q10

Low dose Aspirin 81mg

Vitamin E 400U

Ativan 0.5mg

New Drug Therapy

Start or continue the following drugs:

Citracal Maxium tabs 2 twice a day

Vitamin D 1000U daily

Folic Acid 880mcg daily

Vitamin B12 1000mcg Sublingual tablet dissolve under the tongue each AM

Multivitamin (Centrum Silver or like store brand) daily

Venlafaxine ER 37.5mg at bedtime x 5 doses, then 75mg at bedtime x 5 doses
then 150mg at bedtime thereafter

When reaching the Venlafaxine ER dose of 75mg start the following tapering schedule in the exact order described:

Taper to discontinue: Requip (ropinirole) 3.5mg daily x 7 days,
then 3mg daily x 7 days,
then 2.5mg daily x 7 days,
then 2mg daily x 7 days,
then 1.5mg daily x 7 days,
then 1mg daily x 7 days,
then 0.5mg daily x 7 days and then discontinue completely.

After finishing the Requip (ropinirole) then start the Azilect (Rasagiline):

Azilect (Rasagiline) 0.5mg daily x 7 days,
then 0.5mg every other day for 4 doses and discontinue completely

Remember that it will take time to see all the changes that the new drug therapy will produce. After completing the titration processes that are required, we should see big improvements relating to the complaints recorded. The additional vitamin supplements should also make you feel better after 30 days or so. Further titration of the Venlafaxine ER dosing may be needed until we reach your dose. I feel like the 150mg should be sufficient, but we will see. The tapering process may be uncomfortable and I am hoping after we remove the dopamine agonists (Requip & Azilect) that your mental status will change. Taking these two drugs concomitantly at 70 years of age is an awful stress on the neurotransmission processes and is the cause of the paranoia and hostility. Please understand that if more help is needed you just have to call me. After a few weeks of being totally clear of these dopamine agonists then we will assess the tremors to see if Parkinson's Disease is a fact or if you are just suffering from a familial problem consistent with your family history. We can treat this condition after we clear your body from the offending drugs.

It is very important that we stay in touch. With this in mind I would like for you to call me if you experience any problems anytime and at least weekly to share any problems you may experience. These follow up calls are included in your initial fee and no further charges are placed on you until after our June visit. Please call in May and make an appointment for some time in June.

Let me remind you that this drug therapy regimen is thoroughly thought out and should be followed in its entirety. Choosing only bits and pieces of it may keep us from reaching our mutual goal of improvement in your quality of life and health. I am as close as your phone, so if problems occur please call me. *I look forward to seeing you for a follow-up visit around the end of May or the first of June but would like a progress report weekly by phone until we have all your medication dosages adjusted for you.*

Additionally a computerized analysis of the patient's current drug therapy accompanies this report with attached references for all areas of drug therapy.

Drug Interactions

Trihexyphenidyl (Artane®) and Lorazepam (Ativan®)

 Severity: [Moderate](#)

CNS depressants, such as anxiolytics, sedatives, and hypnotics, can increase the sedative effects of trihexyphenidyl [\[7088\]](#).

Rasagiline (Azilect®) and Lorazepam (Ativan®)

 Severity: [Moderate](#)

The interactions between MAOIs and anticonvulsants are largely pharmacodynamic in nature and not pharmacokinetic. [\[5595\]](#) In general, MAOIs can cause a variable change in seizure patterns, so careful monitoring of the patient with epilepsy is required. [\[4673\]](#) Also, additive CNS depression (e.g., drowsiness) is possible if MAOIs and anticonvulsants are coadministered. Specific precautions and contraindications do exist. MAOIs should not be coadministered with carbamazepine, a dibenzazepine-related drug; hypertensive crises, seizures, coma, or circulatory collapse may occur in patients receiving this combination. [\[4754\]](#) [\[6360\]](#) At least 7 days should elapse between discontinuation of carbamazepine and initiation of rasagiline. [\[4673\]](#) MAOIs should be discontinued for a minimum of 14 days or longer if the clinical situation permits, before administering carbamazepine. [\[4754\]](#) Monoamine oxidase inhibitors (MAOIs) may prolong the effect of some barbiturates, leading to additive CNS depression, although data are very limited. [\[5595\]](#) Until more data are available, barbiturates should be used cautiously in patients receiving MAOIs, and at a reduced dosage. [\[4673\]](#)

The CNS-depressant effects of MAOIs can be potentiated with concomitant administration of other drugs known to cause CNS depression including buprenorphine, butorphanol, dronabinol, THC, nabilone [\[9044\]](#), nalbuphine, and anxiolytics, sedatives, and hypnotics. [\[5595\]](#) Use these drugs cautiously with MAOIs; warn patients to not drive or perform other hazardous activities until they know how a particular drug combination affects them. In some cases, the dosages of the CNS depressants may need to be reduced.

Rasagiline (Azilect®) and Trihexyphenidyl (Artane®)

 Severity: [Moderate](#)

MAOIs exhibit secondary anticholinergic actions. Additive anticholinergic effects may be seen when MAOIs are used concomitantly with antimuscarinics. Clinicians should note that antimuscarinic effects might be seen not only on GI smooth muscle, but also on bladder function, the eye, and temperature regulation. Additive CNS effects are also possible when many of these drugs are combined with MAOIs. [\[7708\]](#) [\[7193\]](#)

Calcium; Vitamin D (Citracal® Plus D) and Aspirin, ASA (Low Dose Adult Aspirin)

 Severity: [Low](#)

By increasing urinary pH, the calcium in calcium; vitamin D products can decrease the urinary excretion of quinidine [\[4976\]](#) or increase the urinary excretion of salicylates [\[7648\]](#). In addition, increased urinary pH can antagonize the actions of methenamine. [\[5032\]](#) Staggering the administration times will not prevent this interaction. Calcium; vitamin D should not be used with urinary acidifiers such as ammonium chloride. [\[6675\]](#)

Ropinirole (Requip®) and Conjugated Estrogens (Premarin®)

 Severity: [Low](#)

Population pharmacokinetic analysis revealed that estrogens (mainly ethinyl estradiol: intake 0.6 mg to 3 mg over 4-month to 23-year period) reduced the oral clearance of ropinirole by 36%. Dosage adjustment may not be needed for ropinirole in patients on estrogen therapy because patients must be carefully titrated with ropinirole to tolerance or adequate effect. However, if estrogen therapy is stopped or started during treatment with ropinirole, then adjustment of the ropinirole dose may be required. [\[4718\]](#)

Ropinirole (Requip®) and Lorazepam (Ativan®)

 Severity: [Moderate](#)

Concomitant use of ropinirole with other CNS depressants, such as anxiolytics, sedatives, and hypnotics, can potentiate the sedation effects of ropinirole. [\[8018\]](#)

Adverse Reactions

- abdominal pain (Low Dose Adult Aspirin | Premarin® | Ativan® | Requip® | Azilect® | Citracal® Plus D)
- acne vulgaris (Premarin®)
- acute generalized exanthematous pustulosis (AGEP) (Low Dose Adult Aspirin)
- agitation (Artane®)
- agranulocytosis (Low Dose Adult Aspirin)
- alopecia (Premarin®)
- amenorrhea (Premarin®)
- amnesia (Ativan® | Artane® | Requip® | Azilect®)
- anaphylactoid reactions (Low Dose Adult Aspirin | Premarin®)
- anemia (Requip® | Azilect® | Citracal® Plus D)
- angioedema (Low Dose Adult Aspirin)
- anhidrosis (Artane®)
- anorexia (Premarin® | Requip® | Azilect® | Citracal® Plus D)
- anxiety (Premarin® | Ativan® | Artane® | Requip® | Azilect®)
- aplastic anemia (Low Dose Adult Aspirin)
- apnea (Ativan®)
- arthralgia (Requip® | Azilect® | Citracal® Plus D)
- asthenia (Requip® | Azilect®)
- ataxia (Ativan® | Azilect® | Citracal® Plus D)
- atrial fibrillation (Requip®)
- azotemia (Low Dose Adult Aspirin | Citracal® Plus D)
- biliary obstruction (Premarin®)
- bleeding (Low Dose Adult Aspirin | Vitamin E)
- blurred vision (Ativan® | Artane® | Vitamin E)
- bradycardia (Ativan® | Artane®)
- breakthrough bleeding (Premarin®)
- breast discharge (Premarin®)
- bronchospasm (Low Dose Adult Aspirin)
- bundle-branch block (Azilect®)
- candidiasis (Premarin®)
- cardiac arrest (Ativan®)
- cervical dysplasia (Premarin®)
- cervicitis (Premarin®)
- chest pain (unspecified) (Requip®)
- cholecystitis (Premarin®)
- cholelithiasis (Premarin®)
- confusion (Low Dose Adult Aspirin | Ativan® | Artane® | Requip® | Azilect®)
- conjunctivitis (Azilect®)
- constipation (Low Dose Adult Aspirin | Ativan® | Artane® | Requip® | Azilect® | Citracal® Plus D)
- contact dermatitis (Vitamin E)
- cough (Azilect®)
- cycloplegia (Artane®)
- dehydration (Low Dose Adult Aspirin)
- delirium (Artane®)
- depression (Premarin® | Ativan® | Artane® | Azilect®)
- diaphoresis (Low Dose Adult Aspirin | Requip®)
- diarrhea (Low Dose Adult Aspirin | Premarin® | Vitamin E | Requip® | Azilect® | Citracal® Plus D)
- diplopia (Ativan® | Requip®)
- disseminated intravascular coagulation (DIC) (Low Dose Adult Aspirin)
- dizziness (Low Dose Adult Aspirin | Ativan® | Requip®)
- drowsiness (Low Dose Adult Aspirin | Ativan® | Artane® | Requip® | Azilect®)
- dysarthria (Ativan®)
- dyskinesia (Requip® | Azilect®)
- dysmenorrhea (Premarin®)
- dyspepsia (Low Dose Adult Aspirin | Requip® | Azilect®)
- dysphagia (Low Dose Adult Aspirin | Requip® | Azilect®)
- dyspnea (Requip® | Azilect®)
- dystonic reaction (Azilect®)

- ecchymosis (Azilect®)
- edema (Premarin® | Requip®)
- elevated hepatic enzymes (Low Dose Adult Aspirin | Premarin®)
- emotional lability (Premarin®)
- encephalopathy (Low Dose Adult Aspirin)
- endometrial hyperplasia (Premarin®)
- enterocolitis (Vitamin E)
- epistaxis (Azilect®)
- eructation (Citracal® Plus D)
- erythema nodosum (Low Dose Adult Aspirin | Premarin®)
- esophageal stricture (Low Dose Adult Aspirin)
- esophageal ulceration (Low Dose Adult Aspirin)
- esophagitis (Low Dose Adult Aspirin)
- euphoria (Ativan® | Artane®)
- fatigue (Premarin® | Ativan® | Vitamin E | Requip® | Citracal® Plus D)
- fever (Low Dose Adult Aspirin | Requip® | Azilect®)
- flatulence (Requip® | Citracal® Plus D)
- fluid retention (Premarin®)
- flushing (Ativan® | Requip®)
- galactorrhea (Premarin®)
- gastric hypersecretion (Citracal® Plus D)
- gastritis (Low Dose Adult Aspirin)
- gastroesophageal reflux (Requip®)
- GI bleeding (Low Dose Adult Aspirin | Azilect®)
- GI perforation (Low Dose Adult Aspirin)
- gingivitis (Premarin® | Azilect®)
- growth inhibition (Citracal® Plus D)
- gynecomastia (Premarin®)
- hallucinations (Low Dose Adult Aspirin | Artane® | Requip® | Azilect®)
- headache (Low Dose Adult Aspirin | Premarin® | Ativan® | Artane® | Vitamin E | Requip® | Azilect® | Citracal® Plus D)
- hearing loss (Low Dose Adult Aspirin)
- heart failure (Vitamin E)
- heat intolerance (Artane®)
- hematuria (Azilect®)
- hemolytic anemia (Low Dose Adult Aspirin)
- hemorrhoids (Low Dose Adult Aspirin)
- hepatic necrosis (Low Dose Adult Aspirin)
- hepatitis (Low Dose Adult Aspirin | Premarin®)
- hepatoma (Premarin®)
- hyperbilirubinemia (Low Dose Adult Aspirin)
- hypercalcemia (Citracal® Plus D)
- hypercalciuria (Citracal® Plus D)
- hypercholesterolemia (Citracal® Plus D)
- hyperesthesia (Requip®)
- hyperglycemia (Low Dose Adult Aspirin | Premarin®)
- hyperkinesis (Artane® | Azilect®)
- hypernatremia (Low Dose Adult Aspirin)
- hyperphosphatemia (Citracal® Plus D)
- hypersalivation (Requip®)
- hypertension (Premarin® | Requip® | Citracal® Plus D)
- hyperthermia (Citracal® Plus D)
- hypertonia (Azilect®)
- hyperuricemia (Low Dose Adult Aspirin)
- hyperventilation (Low Dose Adult Aspirin)
- hypervitaminosis D (Citracal® Plus D)
- hypocalcemia (Premarin®)
- hypoglycemia (Low Dose Adult Aspirin)
- hypokalemia (Low Dose Adult Aspirin)
- hypophosphatemia (Citracal® Plus D)
- hypoprothrombinemia (Low Dose Adult Aspirin)
- hypotension (Ativan® | Requip®)
- ileus (Artane®)

- impaired cognition (Premarin®)
- impotence (erectile dysfunction) (Requip®)
- infection (Requip® | Azilect®)
- influenza (Azilect®)
- insomnia (Premarin®)
- interstitial nephritis (Low Dose Adult Aspirin)
- intracranial bleeding (Low Dose Adult Aspirin)
- involuntary movements (Azilect®)
- irritability (Citracal® Plus D)
- jaundice (Low Dose Adult Aspirin | Premarin®)
- keratoconus (Premarin®)
- laryngeal edema (Low Dose Adult Aspirin)
- lethargy (Requip®)
- leukocytosis (Low Dose Adult Aspirin)
- leukopenia (Low Dose Adult Aspirin)
- libido decrease (Premarin® | Ativan®)
- libido increase (Premarin®)
- maculopapular rash (Low Dose Adult Aspirin)
- malaise (Requip® | Azilect®)
- mania (Ativan®)
- mastalgia (Premarin®)
- melasma (Premarin®)
- melena (Low Dose Adult Aspirin)
- menorrhagia (Premarin®)
- metabolic acidosis (Low Dose Adult Aspirin | Citracal® Plus D)
- metabolic alkalosis (Citracal® Plus D)
- metallic taste (Citracal® Plus D)
- migraine (Premarin®)
- milk-alkali syndrome (Citracal® Plus D)
- muscle cramps (Azilect®)
- musculoskeletal pain (Azilect® | Citracal® Plus D)
- myalgia (Citracal® Plus D)
- myasthenia (Azilect®)
- mydriasis (Artane®)
- myocardial infarction (Premarin®)
- nausea/vomiting (Low Dose Adult Aspirin | Premarin® | Ativan® | Artane® | Vitamin E | Requip® | Azilect® | Citracal® Plus D)
- neuroleptic malignant syndrome (Artane® | Requip®)
- nightmares (Ativan® | Azilect®)
- nocturia (Citracal® Plus D)
- ocular hypertension (Artane®)
- odynophagia (Low Dose Adult Aspirin)
- orthostatic hypotension (Requip® | Azilect®)
- palpitations (Requip®)
- pancreatitis (Premarin®)
- pancytopenia (Low Dose Adult Aspirin)
- paranoia (Artane®)
- paresis (Requip®)
- paresthesias (Artane® | Requip® | Azilect®)
- parotitis (Artane®)
- peliosis hepatitis (Premarin®)
- peptic ulcer (Low Dose Adult Aspirin)
- peripheral edema (Requip®)
- peripheral neuropathy (Azilect®)
- pharyngitis (Requip®)
- photophobia (Citracal® Plus D)
- physiological dependence (Ativan®)
- platelet dysfunction (Low Dose Adult Aspirin)
- polydipsia (Citracal® Plus D)
- polyuria (Citracal® Plus D)
- prolonged bleeding time (Low Dose Adult Aspirin)
- pruritus (Premarin® | Azilect®)
- psychological dependence (Ativan®)

- psychosis (Artane®)
- pulmonary edema (Low Dose Adult Aspirin)
- pulmonary embolism (Premarin®)
- purpura (Low Dose Adult Aspirin)
- pyuria (Requip®)
- rash (unspecified) (Ativan® | Artane® | Azilect®)
- renal failure (unspecified) (Low Dose Adult Aspirin | Citracal® Plus D)
- renal papillary necrosis (Low Dose Adult Aspirin)
- renal tubular necrosis (Low Dose Adult Aspirin)
- respiratory depression (Low Dose Adult Aspirin | Ativan®)
- restlessness (Ativan® | Artane® | Requip®)
- retinal thrombosis (Premarin®)
- Reye's syndrome (Low Dose Adult Aspirin)
- rhinitis (Low Dose Adult Aspirin | Requip® | Azilect®)
- secondary malignancy (Premarin®)
- seizures (Low Dose Adult Aspirin)
- sinus tachycardia (Artane® | Requip®)
- sinusitis (Requip®)
- skin irritation (Vitamin E)
- skin ulcer (Azilect®)
- Stevens-Johnson syndrome (Low Dose Adult Aspirin)
- stroke (Premarin® | Azilect®)
- sudden sleep onset (Requip®)
- syncope (Ativan® | Requip®)
- teratogenesis (Premarin® | Ativan®)
- thrombocytopenia (Low Dose Adult Aspirin)
- thromboembolism (Premarin®)
- thrombosis (Premarin®)
- tinnitus (Low Dose Adult Aspirin | Citracal® Plus D)
- tolerance (Ativan®)
- toxic epidermal necrolysis (Low Dose Adult Aspirin)
- toxic megacolon (Artane®)
- tremor (Ativan® | Azilect®)
- urinary incontinence (Premarin® | Requip® | Azilect®)
- urinary retention (Artane®)
- urticaria (Low Dose Adult Aspirin | Premarin® | Ativan®)
- vaginitis (Premarin®)
- vertigo (Ativan® | Requip® | Citracal® Plus D)
- visual impairment (Low Dose Adult Aspirin | Requip®)
- weakness (Vitamin E | Requip® | Citracal® Plus D)
- weight gain (Premarin®)
- weight loss (Artane® | Requip® | Azilect® | Citracal® Plus D)
- wheezing (Low Dose Adult Aspirin)
- withdrawal (Ativan®)
- xerophthalmia (Requip®)
- xerostomia (Artane® | Requip® | Azilect® | Citracal® Plus D)
- yawning (Requip®)

Precautions

Precaution: Artane® in renal impairment

Trihexyphenidyl should be used cautiously in patients with renal disease, such as renal impairment, because the drug can accumulate, leading to toxicity. The manufacturer also warns that trihexyphenidyl should be used with caution in hepatic disease.

Precaution: Ativan® in depression

Occasionally, pre-existing depression may emerge or worsen with the use of benzodiazepines. Although lorazepam may be beneficial for patients with major depression or psychoses, the drug should be administered cautiously to patients with suicidal ideation. Large quantities of lorazepam should not be prescribed for patients with known suicidal ideation or a history of suicide attempt. Lorazepam should be used cautiously in patients with bipolar disorder because hypomania and mania have been reported in conjunction with the use of benzodiazepines in depressive disorders.

Precaution: Ativan® in Parkinson's disease

Lorazepam should be used with caution in patients with a neuromuscular disease, such as muscular dystrophy, myotonia, or myasthenia gravis as these conditions can be exacerbated. Patients with late stage Parkinson's disease may experience worsening of their psychosis or impaired cognition with administration of benzodiazepines. Benzodiazepines may also cause incoordination or paradoxical reactions that may worsen symptoms of Parkinson's disease.

Precaution: Ativan® in renal impairment

Benzodiazepines should be administered cautiously to patients with renal impairment or renal failure, hepatic disease or hepatic encephalopathy; liver and renal function should be monitored regularly during prolonged therapy. As with all benzodiazepines, the use of lorazepam may worsen hepatic encephalopathy and should be used cautiously in severe hepatic impairment. Because lorazepam undergoes conjugative metabolism as opposed to oxidative metabolism, it is relatively safer to use in patients with hepatic dysfunction with careful clinical monitoring versus other benzodiazepines.

Precaution: Azilect® in renal impairment

Conclusive data are not available to help guide the use of rasagiline in renally impaired patients.[\[9041\]](#) As unconjugated rasagiline is not excreted by the kidney, rasagiline can be given at usual doses in patients with mild renal impairment. Rasagiline should be used with caution in those patients with moderate to severe renal impairment or renal disease (e.g., renal failure, anuria).

Precaution: Low Dose Adult Aspirin in renal impairment

Salicylates should be used with caution in patients with renal impairment and with extreme caution, if at all, in patients with advanced, chronic renal failure since salicylic acid and its metabolites are excreted in the urine. In addition, these patients may be at increased risk of developing salicylate-induced nephrotoxicity. In a case-controlled study of patients with early renal failure, the regular use of aspirin (without acetaminophen) was associated with a risk of chronic renal failure that was 2.5-times as high as that for non-aspirin users.[\[4064\]](#) The risk increased significantly with increasing cumulative lifetime dose and increasing average dose during periods of regular use; duration of therapy was not associated with increased risk. When aspirin was given regularly in analgesic doses (> 500 g per year during periods of regular use) the odds ratio for chronic renal failure was 3.5 (95% confidence interval 1.4 to 8). Low-dose aspirin use for cardiovascular prophylaxis was not significantly associated with the development of renal failure. In this study, it appears that pre-existing renal disease or systemic disease is a required precursor to the development of analgesic-induced renal failure; patients without preexisting renal disease who used analgesics had only a small risk of developing end-stage renal disease. Renal function should be monitored periodically in patients receiving prolonged or high-dose salicylate therapy. Salicylates should be used cautiously in patients with renal disease or systemic lupus erythematosus (SLE) due to the risk of decreased glomerular filtration rate in these patients.

Precaution: Premarin® in depression

Mood disorders, like depression, may be aggravated in women taking exogenous estrogens or progestins. Women with a history of depression may need special monitoring. If significant depression occurs, the hormone replacement therapy should be discontinued.

Precaution: Requip® in renal impairment

No dosage adjustments are needed in patients with mild to moderate renal impairment (CrCl of 30-50 ml/min), however, ropinirole has not been studied in patients with severe renal disease. Administer ropinirole cautiously in patients with severe renal disease or renal impairment.

References

- 4064.** Fored CM, Ejerblad E, Lindblad P, et al. Acetaminophen, aspirin, and chronic renal failure. *N Engl J Med* 2001;345:1801-8.
- 4673.** Nardil® (phenelzine) package insert. New York, NY: Pfizer; 2003.
- 4718.** Hansten PD, Horn JR. Cytochrome P450 Enzymes and Drug Interactions, Table of Cytochrome P450 Substrates, Inhibitors, Inducers and P-glycoprotein, with Footnotes. In: *The Top 100 Drug Interactions - A guide to Patient Management*. 2008 Edition. Freeland, WA: H&H Publications; 2008:142-157.
- 4754.** Tegretol® (carbamazepine) package insert. East Hanover, NJ. Novartis Pharmaceuticals; 2003 Sept.
- 4976.** Quinidex Extentabs® (quinidine sulfate extended-release tablets) package insert. Richmond, VA: A.H. Robbins Company; 2000 Sept.
- 5032.** Methenamine Mandelate (Mandelamine®) package insert. Rockaway, NJ: Warner Chilcott, Inc; 1997.
- 5595.** Bernstein JG. Chapter 12 - Drug Interactions. In: *Drug Therapy in Psychiatry*. 3rd ed. St. Louis MO: Mosby-Year Book, Inc.;1995:328-364.
- 6360.** Thweatt RE. Carbamazepine/MAOI interaction. <!--StartFragment --> *Psychosomatics*. 1986;27:538.
- 6675.** Mudge GH, Weiner IM. Agents affecting volume and composition of body fluids. Gilman AG, Rall TW, Nies AS, Taylor P, (eds.) In: Goodman and Gilman's Pharmacological Basis of Therapeutics. 8th ed., New York, Pergamon Press. 1990:620, 696-97.
- 7088.** Artane® (trihexyphenidyl) package insert. Pearl River, NY: Lederle Pharmaceutical; 2003 Mar.
- 7193.** Marplan® (isocarboxazid) package insert. Research Triangle Park, NC: GlaxoSmithKline; 2001 Aug.
- 7648.** Proudfoot AT, Krenzelok EP, Vale JA. Position Paper on urine alkalinization. *J Toxicol Clin Toxicol* 2004;42:1-26.
- 7708.** Volz HP, Gleiter CH. Monoamine oxidase inhibitors. A perspective on their use in the elderly. *Drugs Aging*. 1998;13:341-55.
- 8018.** Requip® (ropinirole hydrochloride) package insert. Research Triangle Park, NC: GlaxoSmithKline; 2005 July.
- 9041.** Azilect® (rasagiline mesylate) package insert. Kansas City, MO: Teva Neurosciences, Inc.; 2006 May.
- 9044.** Cesamet™ (nabilone) package insert. Costa Mesa, CA: Valeant Pharmaceuticals International; 2006 May.