SYMMETREL® (Amantadine HCI) Antiparkinsonian Agent

INDICATIONS: The treatment of Parkinson's syndrome and in the short-term management of drug-induced extrapyramidal symptoms.

CONTRAINDICATIONS: Patients with known hypersensitivity to the drug. WARNINGS: Patients with a history of epilepsy or other "seizures" should be observed closely for possible untoward central nervous system effects. Patients with a history of congestive heart failure or peripheral edema should be followed closely as there are patients who developed congestive heart failure while receiving SYMMETREL*. Safety of use in pregnancy has not been established. SYMMETREL* should not be used in women of childbearing potential, unless the expected benefit to the patient outweighs the possible risk to the fetus.

SYMMETREL* is secreted in the milk and should not be administered to nursing mothers

PRECAUTIONS: The dose may need careful adjustment in patients with renal impairment, congestive heart failure, peripheral edema or orthostatic hypotension. Since SYMMETREL* is not metabolized and is mainly excreted in the urine, it may accumulate when renal function is inadequate

Care should be exercised when administering to patients with liver disease, a history of recurrent eczematoid rash, psychosis, or severe psychoneurosis not controlled by chemotherapeutic agents. Careful observation is required when administered concurrently with central nervous system stimulants.

Patients with Parkinson's syndrome improving on SYMMETREL* should resume normal activities gradually and cautiously, consistent with other medical considerations, such as the presence of osteoporosis or phlebothrombosis. Patients receiving SYMMETREL* who note central nervous system effects or blurring of vision should be cautioned against driving or working in situations where alertness is important. SYMMETREL[®] should not be discontinued abruptly since a few patients with Parkinson's syndrome experienced a parkinsonian crisis, ie., sudden marked clinical deterioration, when this medication was suddenly stopped.

The dose of anticholinergic drugs or of SYMMETREL* should be reduced if atropine-like effects appear when these drugs are used concurrently.

ADVERSE REACTIONS: Adverse reactions have occurred in patients while receiving SYMMETREL* alone or in combination with anticholinergic antiparkinson drugs and/or levodopa.

Important adverse reactions are orthostatic hypotensive episodes, congestive heart failure, depression, psychosis and urinary retention; and rarely convulsions, reversible leukopenia and neutropenia, and abnormal liver function test results

Adverse reactions of less importance are: anorexia, anxiety, ataxia, confusion, hallucinations, constipation, dizziness (light-headedness), dry mouth, headache, insomnia, livedo reticularis, nausea, peripheral edema, drowsiness, dyspnea, fatigue, hyperkinesia, irritability, nightmares, rash, slurred speech, visual disturbance. vomiting and weakness; and very rarely eczematoid dermatitis and oculogyric episodes. Some side effects were transient and disappeared even with continued administration of the drug.

SYMPTOMS AND TREATMENT OF OVERDOSAGE: Limited data are available concerning clinical effects and management of SYMMETREL' overdosage. An elderly patient with Parkinson's syndrome who took an overdose of 2.8 g of SYMMETREL in a suicidal attempt, developed acute toxic psychosis, urinary retention, and a mixed acid-base disturbance. The toxic psychosis was manifested by disorientation, confusion, visual hallucinations and aggressive behaviour. Convulsions did not occur, possibly because the patient had been receiving phenytoin prior to the acute ingestion of SYMMETREL*

There is no specific antidote. For acute overdosing, general supportive measures should be employed, along with immediate gastric lavage or induction of emesis. Fluids should be forced, and if necessary, given I.V. The pH of the urine has been reported to influence the excretion rate of SYMMETREL*. Since the excretion rate of SYMMETREL' increases rapidly when the urine is acidic, the administration of urine acidifying fluids may increase the elimination of the drug from the body. Blood pressure, pulse, respiration and temperature should be monitored. The patient should be observed for possible development of arrhythmias, hypotension, hyperactivity, and convulsions; if required, appropriate therapy should be administered. Blood electrolytes, urine pH and urinary output should be monitored. If there is no record of recent voiding, catheterization should be done. The possibility of multiple drug ingestion by the patient should be considered.

DOSAGE AND ADMINISTRATION: Parkinson's Syndrome: Initial dose is 100 mg daily for patients with serious associated medical illnesses or who are receiving high doses of other antiparkinson drugs. After one to several weeks at 100 mg once daily, the dose may be increased to 100 mg twice daily. When SYMMETREL* and levodopa are initiated concurrently, SYMMETREL* should be held constant at 100 mg daily or twice daily while the daily dose of levodopa is gradually increased to optimal dose. When used alone, the usual dose of SYMMETREL* is 100 mg twice a day.

Patients whose responses are not optimal with SYMMETREL* at 200 mg daily may benefit from an increase to 300 mg daily in divided doses. Patients who experience a fall-off of effectiveness may regain benefit by increasing the dose to 300 mg daily; such patients should be supervised closely by their physicians.

DOSAGE FORMS: Capsules: (bottles of 100) - each red, soft gelatin capsule contains 100 mg of amantadine HCI. Syrup: (500 mL) - each 5 mL (1 teaspoonful) of clear colorless syrup contains 50 mg of amantadine HCI.

References:

1. Schwab RS, Poskanzer DC, England AC Jr., Young RR: Amantadine in Parkinson's disease. JAMA 1972;227:7.

Product monograph available on request.	P
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Du Pont Pharmaceuticals Mississauga, Ontario L5M 2J4

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AAB

"PROLOP4" 50/12.5

levodopa 50 mg



benserazide 12.5 mg

Antiparkinsonian Agent

Indications Treatment of Parkinson's syndrome when not drug induced.

Contraindications

Known hypersensitivity to levodopa or benserazide; in patients in whom sympathomimetic amines are contraindicated; concomitantly with, or within 2 weeks of, MAOI administration; uncompensated cardiovascular, endocrine, renal, hepatic, hematologic or pulmonary disease; narrowangle glaucoma.

Warnings

Discontinue levodopa at least 12 hours before initiating

'Prolopa'. See Dosage section for substitution recommendations. Not indicated in intention tremor, Huntington's chorea or drug-induced Parkinsonism.

Increase dosage gradually to avoid CNS side effects (involuntary movements). Observe patients for signs of depression with suicidal tendencies or other serious behavioural changes. Caution in patients with history of psychotic disorders or receiving psychotherapeutic agents

In patients with atrial, nodal or ventricular arrhythmias or history of myocardial infarction initiate treatment cautiously in hospital. Caution in patients with history of melanoma or suspicious undiagnosed skin lesions. Safety in patients under 18 years has not been established. In women who are or may become pregnant, weigh benefits against possible hazards to mother and fetus. Not recommended for nursing mothers.

Precautions

Monitor cardiovascular, hepatic, hematopoietic and renal function during extended therapy. Caution in patients with history of convulsive disorders. Upper gastrointestinal hemorrhage possible in patients with a history of peptic ulcer.

Normal activity should be resumed gradually to avoid risk of injury.

Monitor intraocular pressure in patients with chronic wide-angle glau-coma. Pupillary dilation and activation of Horner's syndrome have been reported rarely. Exercise caution and monitor blood pressure in patients on anti-hypertensive medication. 'Prolopa' can be discontinued 12 hours prior to anesthesia. Observe patients on concomitant psychoactive drugs for unusual reactions.

Adverse Reactions

Most common are abnormal involuntary movements, usually dose dependent, which necessitate dosage reduction. Other serious reactions are periodic oscillations in performance (end of dose akinesia, on-off phenomena and akinesia paradoxica) after prolonged therapy, psychiatric disturbances (including paranoia, psychosis, depression, dementia, increased libido, euphoria, sedation and stimulation), and cardiovascular effects (including arrhythmias, orthostatic hypotension, hypertension, ECG changes and angina pectoris). Neurologic, intellectual, gastrointestinal, dermatologic, hematologic,

musculoskeletal, respiratory, genitourinary and ophthalmologic reacting have also been reported. Consult Product Monograph for complete list. Dosage

Individualize therapy and titrate in small steps to maximize benefit without dyskinesias. Do not exceed the recommended dosage range.

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Initially, one capsule 'Prolopa' 100-25 once or twice daily, increased carefully by one capsule every third or fourth day (slower in post-encephalitic Parkinsonism) until optimum therapeutic effect obtained without dyskinesias. At upper limits of dosage, increment slowly at 2-4 week intervals, Administer with food

Optimal dosage is usually 4-8 'Prolopa' 100-25 capsules daily, in 4-6 divided doses

'Prolopa' 200-50 capsules are intended for maintenance therapy once optimal dosage has been determined using 'Prolopa' 100-25 capsules. No patient should receive more than 1000 - 1200 mg levodopa daily during the first year of treatment. 'Prolopa' 50-12.5 capsules should be used when frequent dosing is required to minimize adverse effects.

For patients previously treated with levodopa, allow at least 12 hours to elapse and initiate 'Prolopa' at 15% of previous levodopa dosage During maintenance, reduce dosage slowly, if possible, to a maximum of

600 mg levodopa daily. Supply

'Protopa' 50-12.5 capsules containing 50 mg levodopa and 12.5 mg benserazide. Contains mannitol.

'Prolopa' 100-25 capsules containing 100 mg levodopa and 25 mg benserazide

'Prolopa' 200-50 capsules containing 200 mg levodopa and 50 mg benserazide

Bottles of 100

Product Monograph available on request.

REFERENCES: 1. Rajput, A.H., Stern, W., and Laverty, W.H., (1984). Chronic low dose levodopa therapy in Parkinson's disease: an argument for delaying levodopa therapy. Neurology, 991-996.2. Quinn, N.P., (1990) Levodopa-Based Therapy, Pub:Therapy of Parkinson's Disease by Marcel Decker, 169-184, 3. Pinder, R.M., et al. (1976). Levodopa and decarboxylase Inhibitors: A Review of their Clinical Pharmacology and Use in the Treatment of Parkinsonism. Drugs 11:329-377. 4. Mondal, B K., Mondal, K.N. (1986), Parkinson's Disease in the Elderly: A Long-Term Efficacy Study of Levodopa Benserazide Combination Therapy Pharmather, 4(9) :571-576. 5. Rinne, U.K., Molsa, P. (1979). Levodopa with benserazide or carbidopa in Parkinson's disease. Neurology 29, 1584 1589. 6. Birkmayer, W. (1983). Deprenyl (selegiline) in the treatment of Parkinson's disease. Acta Neurol Scand [Suppl]; 95:103-5. 7. Csanda, E., and Tarczy, M. (1987). Selegiline in the early and late phases of Parkinson's disease, J Neural Transm (Suppl): 25:105-13, 8, Knoll, J. (1983). Deprenyl (selegiline): the history of its development and pharmacological action. Acta Neurol Scand [Suppl]: 95:57:80:34. 9. Presthus, J., Berstad, J., and Lien, K. (1987). Selegiline (deprenyl) and low dose levodopa treatment of Parkinson's disease. A double-blind crossover trial. Acta Neurol Scand Sep 76 (3):200-3. 10. Presthus, J., and Hajba, A (1983). Deprenyl (selegiline) combined with levodopa and a decarboxylase inhibitor in the treatment of Parkinson's disease. Acta Neurol Scand [Suppl]; 95:127-33. 11. Rinne, U.K. (1987). Deprenyl as an adjuvant to levodopa in the treatment of Parkinson's disease. J Neural Transm [Suppl] 25:149-55.



