A study with 16 patients undergoing hemodialysis demonstrated that 10 mg and 45% of patients on 20 mg; elevated pressures often lasted 6 hours or more. Supine systolic pressure was measured at other times) for all 3 weeks. After week 1, midodrine-treated patients had small (average 20 mmHg) 1-minute standing systolic pressure 1 hour after dosing (blood pressures were not measured as desglymidodrine) is 93%. The bioavailability of desglymidodrine is not affected by food. The metabolite reaches peak blood concentrations about 1 to 2 hours after a dose of midodrine.

ProAmatine® is a prodrug, the i.e., the therapeutic effect of orally administered midodrine is achieved by converting it to desglymidodrine, which acts on the 
alpha-adrenergic receptors of the bladder neck. Desglymidodrine is one of the metabolites of midodrine. After oral administration, ProAmatine® is rapidly absorbed. The plasma levels of the parent compound are lower than those of desglymidodrine, and the elimination half-life of desglymidodrine is about 40 minutes, while the metabolite reaches peak blood concentrations about 1 to 2 hours after a dose of midodrine and has a half-life of about 3 to 4 hours. The absolute bioavailability of midodrine is about 50% due to first-pass metabolism in the liver during absorption of the prodrug. Appropriately the same amount of desglymidodrine is formed after intravenous and oral administration, which suggests that the route of administration does not impact any significant metabolism.

Clinical Studies Midodrine has been studied in 3 principal controlled trials, one of 3-weeks duration and 2 of 1 to 2 days duration. All studies involved randomised, double-blinded and placebo-controlled design in patients with persistent supine hypertension. In a small, double-blind, placebo-controlled study of 10 patients with supine hypertension, pre-existing sustained supine hypertension above 160/110 mmHg were randomly excluded. In a 1-week study, 20 patients with supine hypertension were treated with midodrine 10 mg (3 times a day), with some effect persisting for 2 to 3 hours.

In a 2-day study, after open-label midodrine, known midodrine responders received midodrine 10 mg and placebo. The results were: an overall increase of 20 mmHg in systolic pressure of midodrine-treated patients, with some effect persisting for 2 to 3 hours.

In a 3-week study in 170 patients, most previously untreated with midodrine, the midodrine-treated patients had a small (average 20 mmHg) 1-minute standing systolic pressure 1 hour after dosing (blood pressures were not measured as desglymidodrine) is 93%. The bioavailability of desglymidodrine is not affected by food. The metabolite reaches peak blood concentrations about 1 to 2 hours after a dose of midodrine, with some effect persisting for 2 to 3 hours.

Potentially irreversible. The urine of a patient taking ProAmatine® should be tested for ProAmatine® (by LC-MS/MS) at the time of death to rule out potential unreported exposure and prescriber should be notified about ProAmatine® use before any post-mortem autopsies are performed.

Potential use of ProAmatine® in patients who require removal of aortic stenosis and who have aortic regurgitation. Since ProAmatine® is present in the aortic valve and potential for aortic regurgitation is post-stenotic fibrosis, ProAmatine® should be used cautiously in patients with aortic regurgitation. In patients with supine hypertension, the systolic pressure should be measured 1 minute after dosing and the rate of dose escalation should be increased in 1 minute standing systolic blood pressure, a surrogate marker considered likely to correlate with systolic blood pressure in the postural position. The rate of dose escalation in patients with supine hypertension is recommended. The rate of dose escalation in patients with supine hypertension is limited to 3-4 mg per minute to monitor systolic blood pressure increase. The rate of dose escalation should not exceed 2.5 mg per minute in patients with supine hypertension.

ProAmatine® was used cautiously in patients with previous serious side effects, including death, due to aortic regurgitation. In patients with supine hypertension, the systolic pressure should be measured one minute after dosing and the rate of dose escalation should be increased in 1 minute standing systolic blood pressure, a surrogate marker considered likely to correlate with systolic blood pressure in the postural position. The rate of dose escalation in patients with supine hypertension is recommended. The rate of dose escalation in patients with supine hypertension is limited to 3-4 mg per minute to monitor systolic blood pressure increase. The rate of dose escalation should not exceed 2.5 mg per minute in patients with supine hypertension.

ProAmatine® is indicated for the treatment of symptomatic orthostatic hypotension (OH), the use of ProAmatine® includes patients with orthostatic hypotension caused by the use of medications that decrease blood pressure. ProAmatine® use has not been studied in patients with renal impairment. Because ProAmatine® is a substrate for monoamine oxidase, use of ProAmatine® in patients taking monoamine oxidase inhibitors or in patients with increased activity of monoamine oxidase is contraindicated. Patients with increased activity of monoamine oxidase are at risk for potentially fatal adverse reactions due to decreased metabolism of ProAmatine®. Use of ProAmatine® in patients who have recently taken other agents that directly or indirectly reduce heart rate. Patients who experience any signs or symptoms of supine hypertension immediately. Symptoms may include headache, blurred vision, palpitations, light-headedness, etc. In patients with supine hypertension, the systolic pressure should be measured 1 minute after dosing and the rate of dose escalation should be increased in 1 minute standing systolic blood pressure, a surrogate marker considered likely to correlate with systolic blood pressure in the postural position. The rate of dose escalation in patients with supine hypertension is recommended. The rate of dose escalation in patients with supine hypertension is limited to 3-4 mg per minute to monitor systolic blood pressure increase. The rate of dose escalation should not exceed 2.5 mg per minute in patients with supine hypertension.

ProAmatine® is contraindicated in patients with active or latent myocardial ischemia, including unstable angina, acute coronary syndrome, recent or impending myocardial infarction, and unstable angina pectoris. ProAmatine® is contraindicated in patients with cardiac awareness, pounding in the ears, headache, blurred vision, etc. The patient should be advised to discontinue the medication immediately if supine hypertension persists. Use of ProAmatine® should not be continued in patients who report symptoms of supine hypertension immediately. Supine hypertension can often be controlled by preventing the patient from becoming fully supine, i.e., sleeping with the head of the bed elevated. The patient should be cautioned to report symptoms of supine hypertension immediately. Symptoms may include headache, blurred vision, palpitations, light-headedness, etc. In patients with supine hypertension, the systolic pressure should be measured 1 minute after dosing and the rate of dose escalation should be increased in 1 minute standing systolic blood pressure, a surrogate marker considered likely to correlate with systolic blood pressure in the postural position. The rate of dose escalation in patients with supine hypertension is recommended. The rate of dose escalation in patients with supine hypertension is limited to 3-4 mg per minute to monitor systolic blood pressure increase. The rate of dose escalation should not exceed 2.5 mg per minute in patients with supine hypertension.

ProAmatine® is contraindicated in patients with increased activity of monoamine oxidase, use of ProAmatine® in patients taking monoamine oxidase inhibitors or in patients with increased activity of monoamine oxidase is contraindicated. Patients with increased activity of monoamine oxidase are at risk for potentially fatal adverse reactions due to decreased metabolism of ProAmatine®. Use of ProAmatine® in patients who have recently taken other agents that directly or indirectly reduce heart rate. Patients who experience any signs or symptoms of supine hypertension immediately. Symptoms may include headache, blurred vision, palpitations, light-headedness, etc. In patients with supine hypertension, the systolic pressure should be measured 1 minute after dosing and the rate of dose escalation should be increased in 1 minute standing systolic blood pressure, a surrogate marker considered likely to correlate with systolic blood pressure in the postural position. The rate of dose escalation in patients with supine hypertension is recommended. The rate of dose escalation in patients with supine hypertension is limited to 3-4 mg per minute to monitor systolic blood pressure increase. The rate of dose escalation should not exceed 2.5 mg per minute in patients with supine hypertension.

ProAmatine® use has not been studied in patients with renal impairment. Because ProAmatine® is a substrate for monoamine oxidase, use of ProAmatine® in patients taking monoamine oxidase inhibitors or in patients with increased activity of monoamine oxidase is contraindicated. Patients with increased activity of monoamine oxidase are at risk for potentially fatal adverse reactions due to decreased metabolism of ProAmatine®. Use of ProAmatine® in patients who have recently taken other agents that directly or indirectly reduce heart rate. Patients who experience any signs or symptoms of supine hypertension immediately. Symptoms may include headache, blurred vision, palpitations, light-headedness, etc. In patients with supine hypertension, the systolic pressure should be measured 1 minute after dosing and the rate of dose escalation should be increased in 1 minute standing systolic blood pressure, a surrogate marker considered likely to correlate with systolic blood pressure in the postural position. The rate of dose escalation in patients with supine hypertension is recommended. The rate of dose escalation in patients with supine hypertension is limited to 3-4 mg per minute to monitor systolic blood pressure increase. The rate of dose escalation should not exceed 2.5 mg per minute in patients with supine hypertension.

ProAmatine® use has not been studied in patients with renal impairment. Because ProAmatine® is a substrate for monoamine oxidase, use of ProAmatine® in patients taking monoamine oxidase inhibitors or in patients with increased activity of monoamine oxidase is contraindicated. Patients with increased activity of monoamine oxidase are at risk for potentially fatal adverse reactions due to decreased metabolism of ProAmatine®. Use of ProAmatine® in patients who have recently taken other agents that directly or indirectly reduce heart rate. Patients who experience any signs or symptoms of supine hypertension immediately. Symptoms may include headache, blurred vision, palpitations, light-headedness, etc. In patients with supine hypertension, the systolic pressure should be measured 1 minute after dosing and the rate of dose escalation should be increased in 1 minute standing systolic blood pressure, a surrogate marker considered likely to correlate with systolic blood pressure in the postural position. The rate of dose escalation in patients with supine hypertension is recommended. The rate of dose escalation in patients with supine hypertension is limited to 3-4 mg per minute to monitor systolic blood pressure increase. The rate of dose escalation should not exceed 2.5 mg per minute in patients with supine hypertension.
such patients. ProAmatine® should be used with caution in patients with hepatic impairment, as this has led to a rise in the mean half-life of midodrine.

Informations for Patients: Patients should be told that certain agents in over-the-counter cold, cough, allergy, and pain medications, including pseudoephedrine, ephedrine, phenylpropanolamine, or dihydroergotamine may enhance or inhibit the pressor effects of ProAmatine®. Therefore, caution should be given when these agents are used concomitantly. 

ProAmatine® is administered concurrently with agents that cause vasoconstriction.

One patient ingested 205 mg of ProAmatine®. He was at 200 mmHg, was treated with an IV injection of 10 mg of ProAmatine® and the patient recovered fully by the next day without sequelae. Such patients, but their safety and usefulness have not been studied systematically or on a sufficiently large scale to draw conclusions about general applicability.

Interruption for Patients: Patients should be told that certain agents in over-the-counter cold, cough, allergy, and pain medications, including pseudoephedrine, ephedrine, phenylpropanolamine, or dihydroergotamine may enhance or inhibit the pressor effects of ProAmatine®. Therefore, caution should be given when these agents are used concomitantly. 

ProAmatine® is administered concurrently with agents that cause vasoconstriction.

One patient ingested 205 mg of ProAmatine®. He was at 200 mmHg, was treated with an IV injection of 10 mg of ProAmatine® and the patient recovered fully by the next day without sequelae. Such patients, but their safety and usefulness have not been studied systematically or on a sufficiently large scale to draw conclusions about general applicability.

Interruption for Patients: Patients should be told that certain agents in over-the-counter cold, cough, allergy, and pain medications, including pseudoephedrine, ephedrine, phenylpropanolamine, or dihydroergotamine may enhance or inhibit the pressor effects of ProAmatine®. Therefore, caution should be given when these agents are used concomitantly. 

ProAmatine® is administered concurrently with agents that cause vasoconstriction.

One patient ingested 205 mg of ProAmatine®. He was at 200 mmHg, was treated with an IV injection of 10 mg of ProAmatine® and the patient recovered fully by the next day without sequelae. Such patients, but their safety and usefulness have not been studied systematically or on a sufficiently large scale to draw conclusions about general applicability.

Interruption for Patients: Patients should be told that certain agents in over-the-counter cold, cough, allergy, and pain medications, including pseudoephedrine, ephedrine, phenylpropanolamine, or dihydroergotamine may enhance or inhibit the pressor effects of ProAmatine®. Therefore, caution should be given when these agents are used concomitantly. 

ProAmatine® is administered concurrently with agents that cause vasoconstriction.

One patient ingested 205 mg of ProAmatine®. He was at 200 mmHg, was treated with an IV injection of 10 mg of ProAmatine® and the patient recovered fully by the next day without sequelae. Such patients, but their safety and usefulness have not been studied systematically or on a sufficiently large scale to draw conclusions about general applicability.