

Pentoxifylline

Pentoxifylline has been unavailable for some time with the earliest expected date of availability March 7, 2011.¹

Products listed in the Saskatchewan formulary are²:

Ratio-pentoxifylline 400mg	tablet	01968432	Ratiopharm Inc.
Apo-pentoxifylline SR 400mg	tablet	02230090	Apotex
Nu-pentoxifylline-SR 400mg	tablet	02230401	Nu-Pharm Inc.
Trental 400mg	tablet	02221977	Sanofi-Aventis Canada Inc.

Products listed in the Health Canada Drug Product Database³:

Active	02230090	APOTEX INCORPORATED	APO- PENTOXIFYLLINE SR	Schedule F	PENTOXIFYLLINE 400 MG
Active	02230401	NU-PHARM INC.	NU- PENTOXIFYLLINE- SR 400 MG	Schedule F	PENTOXIFYLLINE 400 MG
Active	02221977	SANOFI- AVENTIS CANADA INC.	TRENTAL	Schedule F	PENTOXIFYLLINE 400 MG

Mechanism of action:

Pentoxifylline is a methylxanthine derivative and is believed to produce beneficial hemorrheologic properties which increases tissue perfusion in patients with peripheral vascular disease.⁴

Uses:

Pentoxifylline is used for the symptomatic treatment of intermittent claudication associated with peripheral vascular disease (i.e., chronic occlusive arterial disease of the extremities). Although pentoxifylline may provide some improvement in function of the extremities and symptoms of the disease, management of intermittent claudication with the drug should not replace more definitive therapy for peripheral vascular disease such as smoking cessation, weight loss, exercise therapy, or surgical bypass or removal of arterial obstructions when indicated.⁴

Clinical evaluation of patients receiving pentoxifylline indicates that the drug can improve psychopathologic symptoms of cerebrovascular insufficiency (e.g., those associated with aging, stroke, transient ischemic attacks), including memory loss, disorientation, constructional apraxia, impaired practical reasoning, motor impairment, and dizziness. In addition, pentoxifylline therapy has reduced the incidence of recurrence of transient ischemic attacks. Other sources say the available data evaluating pentoxifylline in cerebrovascular disorders is not convincing, and at present the drug appears to have no place in the treatment of most cerebrovascular disorders or dementia. However, further studies are required to evaluate this drug in transient ischemic attacks.⁶

Additional studies to determine the efficacy of pentoxifylline in patients with cerebrovascular insufficiency are currently under way.

Other uses that require further study to determine the role and efficacy of pentoxifylline are:

- Prophylactic use in patients to manage sickle cell disease
- Improvement of peripheral neuropathy in diabetic patients
- Use in combination with cortisone for Bell's palsy
- Use in treatment of male fertility disorder⁶

Alternate therapies for intermittent claudication:

The available data indicate that the benefit of pentoxifylline is marginal and not well established in intermittent claudication. Since other drugs indicated for peripheral vascular disease have demonstrated poor efficacy, a trial of pentoxifylline would appear to be in order in these patients.

Antiplatelet agents are warranted in all patients with claudication to reduce the risk of myocardial infarction, stroke, and cardiovascular mortality. Aspirin (75 to 162 mg/day) should be given indefinitely, particularly in patients with clinically evident coronary or cerebrovascular disease. Aspirin may be considered in patients without symptoms.

The combination of aspirin and dipyridamole was found to increase the pain-free walking distance and resting limb blood-flow in a study of 54 patients with intermittent claudication.

Ticlopidine, an inhibitor of platelet aggregation, appears to modestly increase walking distance in patients with intermittent claudication.

Clopidogrel is similar to ticlopidine, but considered a safer drug.

Aspirin is the antiplatelet agent of choice; clopidogrel may be used if aspirin cannot be tolerated.⁵

References:

1. Mckesson
2. Saskatchewan Formulary 2010-2011
3. Health Canada Drug Product Database

4. Drug Dex Evaluation
5. UpToDate-Medical Management of Claudication
6. AHFS Drug Information 2011 Stat!Ref