Indian Health Service

IHS National Pharmacy and Therapeutics Committee

Formulary Brief: Drug Interactions with Gemfibrozil

May 2012

Background:

The IHS National Pharmacy and Therapeutics Committee (NPTC) reviewed the agents used in the management of dyslipidemia at the April 2012 meeting. The fibrate class of medications were included as part of this topic. The presentation included a literature review of the fibrate agents as well as pharmacoeconomic and IHS utilization data for each agent. The IHS National Core Formulary (NCF) includes the fibrate gemfibrozil. [1] Discussions of the recent FDA labeling changes related to drug interactions with lipid lowering agents including fibrates were included and the NPTC recommended that a formulary brief be developed concerning these interactions.

Discussion:

The fibrate class of medications (See table 1) are frequently employed for their beneficial effects in the treatment of elevated triglycerides, low HDL levels and elevated LDL. Fibrates may lower serum triglyceride levels by 30-60% and raise HDL 18-22%. Fibrates may lower serum LDL levels by 5-20%, but when triglycerides are very high, the LDL may be raised. [2-5] In addition to the benefit on triglycerides and HDL, improvements in coronary lesions and reduced major coronary events have been seen in clinical trials. No head to head trials have compared the fenofibrate products; however, a comparison of fenofibrate and gemfibrozil showed similar lipid lowering between groups. [6]

Table 1: Fibrate Dosing[2-5]

Drug	Brand Name	Dose
Gemfibrozil	Lopid	600 mg twice daily
Fenofibrate	Tricor	48-145 mg daily
Fenofibric acid	Trilipix	45-135 mg daily

Fibrates are often used concomitantly with other medications. Patients may have mixed dyslipidemias that may require drug therapy to manage triglycerides and LDL cholesterol. Fibrates have several drug interactions that providers must take into consideration when prescribing these products. Prescribers should note the precautions against using gemfibrozil in conjunction with simvastatin and lovastatin, but also clopidogrel or repaglinide. While not an inclusive list, table 3 lists several drug interactions with each of the fibrate products, the potential impact of the interaction and special instructions.

Table 2: Fibrate Drug Interactions[2,4,5]

	Avoid Concomitant Use	May Increase level/effect	May decrease level/effect
Gemfibrozil	Simvastatin, Lovastatin, Clopidogrel, Repaglinide	HMG-CoA reductase Inhibitors, Carvedilol, Citalopram, Colchicine, Ezetimibe, Sulfonylureas, Vitamin K Antagonists, Warfarin	Clopidogrel, Cyclosporin, Chenodiol
Fenofibrate	None	HMG-CoA reductase Inhibitors, Ezetimibe, Sulfonylureas, Vitamin K Antagonists, Warfarin	Cyclosporin, Chenodiol
Fenofibric acid			

Findings:

Fibrates have been utilized for many years in the management of triglycerides. The NPTC did not find a compelling clinical reason to modify the NCF and therefore gemfibrozil remains the fibrate on the NCF. Prescribers must be cognizant of the drug interactions associated with these products for appropriate management.

If you have any questions regarding this document, please contact the NPTC at nptc1@ihs.gov.

References:

1. IHS National Core Formulary; http://www.ihs.gov/nptc/index.cfm?module=dsp_nptc_formulary; accessed April 4, 2012.
2. Gemfibrozil. Lexi-Drugs Online [PDA]. Hudson (OH) : Lexi-Comp, Inc. 1978-2010 [cited 2013 Mar 13].
3. Fibrates. Lexi-Drugs Online [PDA]. Hudson (OH) : Lexi-Comp, Inc. 1978-2010 [cited 2013 Mar 13].
4. Fenofibrate. Lexi-Drugs Online [PDA]. Hudson (OH) : Lexi-Comp, Inc. 1978-2010 [cited 2013 Mar 13].
5. Fenofibric acid. Lexi-Drugs Online [PDA]. Hudson (OH) : Lexi-Comp, Inc. 1978-2010 [cited 2013 Mar 13].
6. Duez H, Lefebvre B, Poulain P, et al. Regulation of human apoA-I by gemfibrozil and fenofibrate through selective peroxisome proliferator-activated receptor alpha modulation. *Arterioscler Thromb Vasc Biol.* Mar 2005;25(3):585-591.