Livalo (Pitavastatin)
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1) LIVALO DISCUSSION:

Although new to the US pitavastatin has been used in Japan for many years with great safety (in a population fairly sensitive to statins). Because it binds much more completely with HMG CoA reductase than other statins, it takes a much less concentration compared to other statins to inhibit cholesterol synthesis (thus it is marketed at 1, 2 and 4 mg rather than the usual 10, 20, and 40 mg). The best and most current review of it I have seen is from Clin. Lipidol. (2010) 5(3), 309–323 where all statins are compared on all clinically important pharmacokinetic and pharmacodynamic parameters. The author concludes: "Pitavastatin is a novel statin that induces plaque regression (IVUS Study) and is non-inferior to atorvastatin and, on some measures, superior to simvastatin and to pravastatin in the elderly. Pitavastatin addresses non-LDL-C risk factors, including producing sustained increases in HDL-C levels. Both the pitavastatin molecule and the lactone metabolite undergo very little metabolism by CYP3A4 and, therefore, unlike some other statins, does not interact with CYP3A4 substrates. It is the least lipophilic statin and thus requires like rosuvastatin various ABC transporters and solute carriers like organic anion transporters to get in and out of cells and thus there are **potential** interactions (as with most other statins) with erythromycin, cyclosporine, gemfibrozil, ritonavir/lopinavir etc. It's LDL-C lowering ability is in the Lipitor 20-40 mg range with a 30-40% range (depending on the dose used) and is somewhat more effective at raising HDL-C and apoA-I than other statins: the mechanism is it stimulates apoA-I production and ABCA1 upregulation (Biochemical and Biophysical Research Communications 324 (2004) 835–839).

The medical letter concluded: Doses of pitavastatin (Livalo) have not been shown to decrease LDL-C more doses of other statins and no data are available on clinical outcomes with pitavastatin. In addition, pitavastatin has a worrisome potential for clinically significant drug interactions.

TD note: Any statin that has been tested in an outcome trial has been successful and there is no reason why pitavastatin would not also reduce events. Most providers used every statin for years before there were outcomes! Pitavastatin was as successful in regressing plaque volume as was atorvastatin in an IVUS trial called JAPAN-ACS ((J Am Coll Cardiol 2009;54:293–302). The claim regarding LDL lowering is erroneous as pitavastatin is actually more efficacious than fluvastatin, pravastatin, lovastatin, and 10 & 20 mg doses of simvastatin and the last sentence in the Medical Letter using the word "worrisome" is both ridiculous and 100% false - The pharmacokinetics of pitavastatin are extremely clean, better than all of the more lipophilic statins now on the market except fluvastatin (read the reference cited above which compares pitavastatin to all other statins using published data not invective). I cannot remember the last branded drug that was not first in its class to be released that the Medical Letter found any use for including Crestor which is why personally I find little use whatsoever for recommendations of the medical letter.

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Finally the medical letter concludes: "There is no good reason to use pitavastatin." I say how about this: (1) the tons of folks like me who have been unable to use any statin because of myalgia! The excellent tolerability in statin-sensitive Japanese patients is very encouraging and I use a trial of Livalo for most of my statin intolerant patients: time will tell if there are less myopathic symptoms. I also say how about this: (2) There is no debate Crestor (rosuvastatin) is the most powerful statin on lowering apoB and LDL-P. Lipidologists like myself who get the nightmare apoB cases use a lot of rosuvastatin. The standard doses of the generic statins simply cannot cut it and nobody wants to use simvastatin at 80 mg (because of its myopathic history). So If you like me to get to LDL-P and apoB goal and are not using Crestor you are left with Livalo or Lipitor: I'll take the Livalo as it is less lipophilic, has better pharmacokinetics, is as efficacious and is cheaper than Lipitor 20-40 mg). If you need Lipitor 80 (which would at lower apoB but not raise apoA-I more than Livalo 4 mg), it is my belief you really need Crestor or Crestor/Zetia as Crestor induces far less over-absorption of sterols than does Lipitor.