SAFER®
SAFER USE OF HIGH RISK MEDICINES

Waitemata District Health Board
Best Care for Everyone

SIMVASTATIN - SAFE PRESCRIBING - TIME TO CHEW THE FAT!

- PRESCRIBE APPROPRIATELY
- REVIEW HIGH DOSES
- INFORM PATIENTS ABOUT MYOPATHY
- REVIEW USE IN OLDER ADULTS
- CHECK INTERACTIONS AND CONTRAINDICATIONS

Statins are among the most frequently prescribed medicines in New Zealand. Some interactions with simvastatin have been recently reclassified as contraindications, and fatalities from statin use are still being reported.

PRESCRIBE APPROPRIATELY

Statins are effective for the secondary prevention of cardiovascular events caused by atherosclerosis such as stroke and myocardial infarction, but they do not appear to be quite as useful for primary prevention.

Prior to treatment, the patient should be adhering to a cholesterol-lowering diet and exercise regimen; encourage them to continue with this during treatment.

The intensity of treatment should be dependent on the risk of cardiovascular disease (CVD).

The New Zealand Primary Care Handbook recommendations:

5 year combined CVD risk status	Therapy recommendations
CVD risk less than 10%	Lifestyle measures; lipid lowering medication is not necessary for most patients
CVD risk 10-20%	Lifestyle measures and consider lipid lowering medication
Known CVD or CVD risk over 20%	Lifestyle measures and lipid lowering medication

Monitor lipid profile every 3-6 months after starting treatment until lipid levels are stable, and annually therafter. If total cholesterol (TC) > 8mmol/L or TC:HDL cholesterol ratio > 8 then lipid lowering treatment is recommended irrespective of the combined CVD risk.

Note: Statins do not need to be dosed at night; choose a regimen that best suits the patient to encourage compliance.

REVIEW HIGH DOSES

Doses over 40mg should only be considered for patients at high risk of cardiovascular complications who have not achieved their treatment goals with lower doses.

High doses are more likely to cause myopathy, but may not offer significant clinical benefits because the dose-response is not linear (ie the 80mg dose only reduces LDL cholesterol by an additional 6% over the 40mg dose). If treatment goals are not being achieved, or if adverse effects are unacceptable, other statins such as atorvastatin or rosuvastatin could be considered.

INFORM PATIENTS ABOUT MYOPATHY

All patients starting simvastatin should be asked to report any symptoms of unusual muscle pain, tenderness or weakness. Symptoms typically start within 6 months of initiating the statin. Simvastatin is now contraindicated if patients have **ever** experienced myopathy with **any** lipid lowering medicines. The risk of myopathy increases in older adults (>65 years), in females, and those with uncontrolled hypothyroidism, diabetes or renal impairment. Pre-existing muscle or liver disease, high dose treatment, concomitant interacting medicines and frailty also contribute to the risk.

Check serum creatine kinase (CK) if there is unexplained muscle pain and discontinue simvastatin if myopathy is suspected.

<u>New Zealand Primary Care Handbook Recommendations</u>

- Muscle pain with no elevated CK – dose reduction or discontinuation may be required
- Muscle pain with CK 3-10 times upper limit of normal (ULN) – dose reduction with weekly monitoring of symptoms and CK or discontinuation
- Muscle pain with CK more than 10 times ULN - discontinue statin immediately

➥ continued

SIMVASTATIN

REVIEW USE IN OLDER ADULTS

The benefit of statins in the very old (over 85 years) is less clear than in younger adults. Generally the potential for interactions and side effects is greater and the value of long-term risk reduction is not as clear.

Patients treated with simvastatin 80mg daily who are over 65 years are at greater risk of myopathy compared to those under 65 years. Consider dose reductions particularly for patients in this age group.

CHECK INTERACTIONS AND CONTRAINDICATIONS

Simvastatin is now **contraindicated** with itraconazole, ketoconazole, erythromycin, clarithromycin, cyclosporin and gemfibrozil. If these medicines are essential, simvastatin should be suspended. Be cautious using simvastatin with diltiazem, verapamil, amlodipine and amiodarone; if these medicines are needed, use a lower dose (no more than 20mg per day) or an alternative statin, such as rosuvastatin. Dose reductions are also advised for patients taking fibrates, terbinafine or colchicine with simvastatin.

Statin-induced hepatotoxicity is rare; routine alanine transaminase (ALT) monitoring during treatment is only necessary if there are symptoms of hepatotoxicity.

Simvastatin should be used with caution if patients consume large amounts of alcohol or if they have a history of liver disease. Active liver disease or unexplained transaminase elevations are contraindications to simvastatin use.

A recent study suggests there may be an increased risk of diabetes with statins. Ask patients if they notice increased thirst, urination or blurred vision. All patients taking statins should have their HbA1c tested each time a CVD risk assessment is performed.

Note: Grapefruit juice increases the plasma level of simvastatin, but the effect of typical consumption (250mL daily) is minimal, and is considered of no clinical relevance.

ACKNOWLEDGEMENTS

We would like to thank Dr John Scott, Clinical Director of Geriatric Medicine, Waitemata District Health Board for his valuable contribution to this bulletin.

REFERENCES

1. Best Practice Journal Reports. A review of statin use and monitoring. www.bpac.org.nz/Report/2014/October/statins.aspx (Accessed 05-08-15)
2. Actavis New Zealand Limited. Arrow-Simva Data Sheet 17-07-13. www.medsafe.govt.nz/profs/datasheet/a/ArrowSimvatab.pdf (Accessed 18-05-15)
3. The New Zealand Formulary, simvastatin. http://nzf.org.nz/nzf_1618 (Accessed 03-08-15)

CLICK HERE FOR FURTHER INFORMATION ON SIMVASTATIN AND A FULL REFERENCE LIST

No: 0182-01-078, Issued: August 2015; Review August 2018