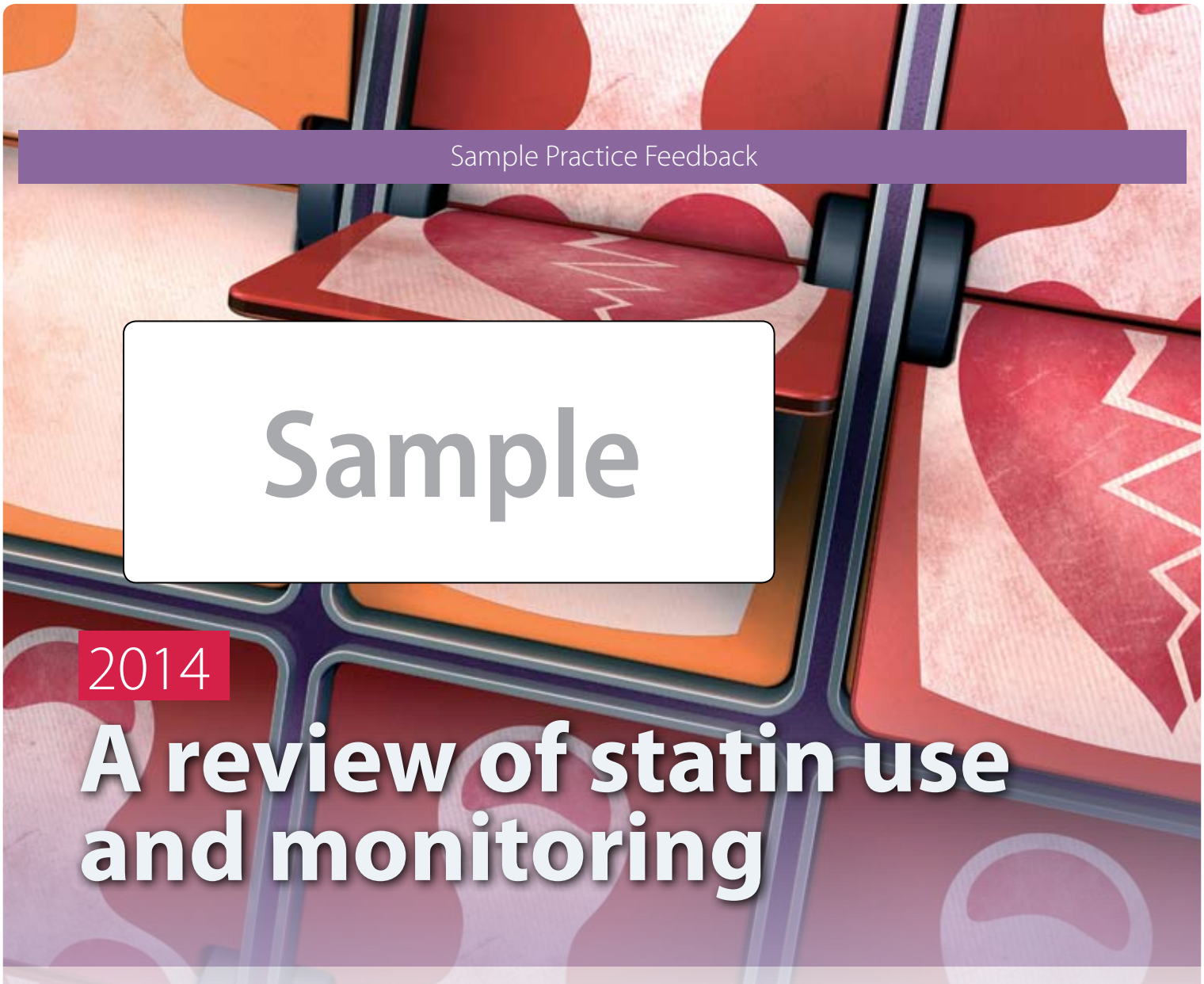

Sample Practice Feedback

Sample

2014

A review of statin use and monitoring

Practical tips and information for prescribing statins[1]

Statins are one of the most frequently prescribed medicines in New Zealand each year (Table 1). Alongside lifestyle modifications, statins are the mainstay of lipid management. New Zealand and international guidelines recommend statins for the primary prevention of cardiovascular disease.

Liver dysfunction and muscle problems such as pain (myalgia) and weakness can be experienced by up to 10% of patients taking statins. However, myalgia is commonly experienced by all people at some stage in their life, regardless of statin use. **Risk factors** for statin-associated myalgia include pre-existing muscle, liver or kidney disease, high-dose statin treatment, concomitant interacting medicines, intercurrent illness, frailty and advanced age.

It is no longer considered necessary to routinely **monitor** liver (alanine aminotransferase [ALT]) and muscle (creatine kinase [CK]) biochemistry unless the patient has specific risk factors or develops symptoms or signs of liver dysfunction or muscle problems.

When should lipid-modifying treatment be stopped or the dose reduced?

- Statins should be used with caution in patients with ALT more than three times normal levels
- Either a statin dose reduction or discontinuation should be considered if CK is between three to ten times the normal level
- Statins should be discontinued immediately if CK is more than ten times the normal level
- Patients with persistent unexplained muscle pain may require a dose reduction or discontinuation

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Statin Use in New Zealand

Statins are commonly used medicines in New Zealand, with approximately **16% of the adult population (≥18 years of age) dispensed a statin** in the last 12 months (Table 1).

Table 1: Number of registered patients dispensed any statin in New Zealand and in your practice between Jul 2013 – Jun 2014

	National		Sample Practice	
Medicine Name	Number of patients	% of population	Number of patients	% of practice population
Atorvastatin	284,262	8.9%	470	4.7%
Simvastatin	226,984	7.1%	929	9.2%
Pravastatin	12,626	0.4%	9	0.1%
Ezetimibe with Simvastatin	1,900	0.1%	9	0.1%
TOTAL	525,772	16.5%	1,417	14.0%

Doses of simvastatin over 40 mg should only be considered for patients who have not achieved treatment goals at lower doses, as these doses only produce a slight additional reduction in LDL but greatly increase the risk of myopathy.[2] In patients taking 80 mg simvastatin, consider switching to atorvastatin 40 mg daily, which is an equivalent dose. In addition, consider that the benefits of statin treatment for elderly people are less clear than in younger populations, therefore older patients may benefit more from a reduction in dose. Table 2 shows the proportion of all statin patients who are taking high-dose simvastatin, nationally and for your practice, this dose increases myopathy risk.[1,2]

Table 2: The number of patients dispensed high-dose simvastatin in New Zealand and in your practice between Jul 2013 – Jun 2014

	National		Sample Practice	
Medicine Name	Number of patients	% of all statin users	Number of patients	% of all statin users
Simvastatin 80mg	8,636	1.6%	17	1.2%

Monitoring statin safety is not routinely required

Baseline testing of muscle enzymes prior to statin treatment is unnecessary unless the patient has risk factors. Once treatment has started, monitoring of alanine aminotransferase (ALT) or creatine kinase (CK) is unnecessary unless clinically indicated i.e. the patient is symptomatic or has specific risk factors. Figure 1 below shows that nationally these guidelines are being followed with a reduction in testing over the last three years. Between Jul 2013 – Jun 2014, **5.5% of patients dispensed a statin had a CK test and 3% an ALT test**.

Sample Practice

Between Jul 2013 – Jun 2014 for the patients registered to Sample Medical who were dispensed a statin*

3.0% had a CK test

0.1% had an ALT test

National

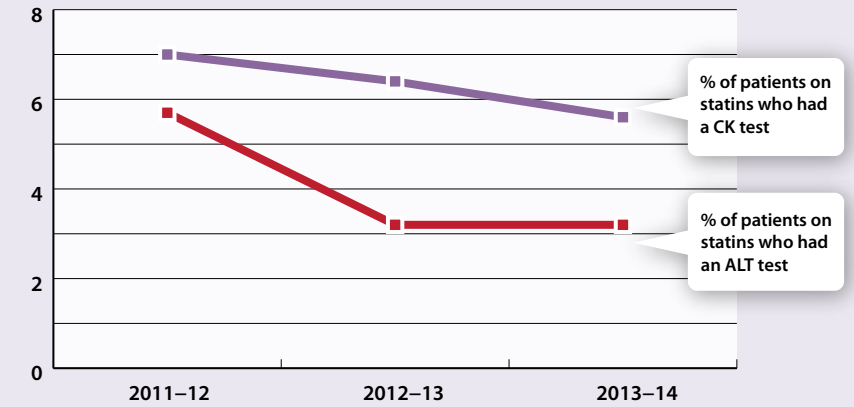

Figure 1: The percentage of patients in New Zealand who were dispensed a statin and received monitoring tests between 2011/12 – 2013/14

1. Best Tests, August 2014. Available at www.bpac.org.nz (Accessed Oct, 2014).
2. New Zealand Formulary 2014. Available at www.nzf.org.nz/nzf_1618 (Accessed Oct, 2014).

* These tests may have been ordered by someone at your practice or by other health practitioners