Te Awakairangi Health NETWORK

March 2018

What's new in CVD risk assessment and management

In February 2018 the MOH released a new consensus statement for CVD risk assessment and management[1].

Although this new guidance references the NZ *Primary Prevention* Equations in the NZ PREDICT study (which have not yet been incorporated into electronic practice systems) the **patient management recommendations can be applied now** using current CVD risk assessments – high, intermediate and low risk patients.

Important changes:

- **Start screening earlier**
  - For Māori, Pacific and South-Asian populations, begin in **men at 30 years old**, **women at 40 years old**.
  - Screen patients with **severe mental illness from 25 years old –** *start identifying these patients.*
- **Annual reviews –** recommended for all **high risk** patients and **intermediate risk patients on medication**.
- **New clinical high risk groups** – the following patients are now regarded as **high risk** and require intensive risk management. Patients with:
  - **heart failure**
  - **eGFR < 30 ml/min** (chronic kidney disease). ***Do a serum creatinine on all patients for CVDRA*.**
  - where available - **diagnosis of asymptomatic carotid disease or coronary disease** (includes coronary artery calcium score > 400 or plaque identified on CT angiography)
- **Lipid management**
  - For individuals with a **TC/HDL-C ratio ≥8**, after lifestyle modifications, drug treatment is recommended regardless of predicted CVD risk
  - For **high risk** patients treat regardless of LDL. A **LDL-C** target of **1.8mmol/L** or lower is recommended, plus dietary changes
  - For **intermediate-risk** patient – discuss benefits/harms of statin therapy – if statin started, an LDL-C reduction of 40% or greater is recommended
- **Blood Pressure**
  - For patients with a persistent office BP **≥ 160/100** mmHg – after lifestyle modifications, drug treatment is recommended regardless of predicted CV risk.
  - For **high risk** patients with persistent office BP **≥ 130/80** mmHg – drug treatment + lifestyle changes is strongly recommended
  - For **intermediate risk** patients with persistent office BP **≥ 140/90** mmHg – the benefits/harms of BP-lowering therapy should be discussed to allow an individualised informed decision
  - For **ALL** patients commenced on BP-lowering therapy – a target office **BP ≤ 130/80mmHg** is recommended.
  - Caution recommended in lowering BP in older people and those with co-morbidities
- **Aspirin in primary prevention** – benefits versus risk of bleeding needs to be considered:
  - In primary prevention, in patients **<70 years old** with a **high** five year CVD **risk (i.e. ≥20**% when using current equations) the benefits of aspirin (reduction in non-fatal MI and possible small net years gain) may outweigh the bleeding risk and **should** be considered after careful assessment and during shared decision making
  - Aspirin is **not recommended** in primary prevention (alone) for patients >70 years old **OR** in patients with an intermediate CVD risk.

For patients with estimated **intermediate** CVD risk (i.e. of 10 – 20% when using current equations) it is reasonable to consider pharmacological treatment of modifiable risk factors (lipid-lowering and BP lowering) – discuss benefits versus harms to allow an individualised decision about whether to start treatment.

Lipid management

- Substituting dietary saturated fat with mono and polyunsaturated fats is the most effective dietary approach to reduce LDL-C, while maintaining or increasing HDL-C.
- Statins are the preferred choice of lipid-lowering medication – **each 1.0 mmol/L reduction in LDL-C is associated with a 25% relative risk reduction in CVD events over 5 years.**
- For those with a TC/HDL ratio ≥ 8, after lifestyle modification, lipid-lowering medication is recommended regardless of predicted CV risk.
- For **high risk** patients (in both primary and secondary prevention) a **LDL-C** target of **1.8mmol/L** or lower is recommended.
- Once target LDL-C is considered satisfactory, an annual review is recommended

There has been some debate around statin use for primary prevention in people aged > 75 years old.[3] When a lipid lowering agent is indicated, however, age alone is not a reason to decline or stop a statin – the patients' individual situation (such as frailty, co-morbidities, life expectancy and patient views) needs to be considered, especially in those who are at high risk of recurrent cardiovascular events (where there is evidence of benefit).[3]

Statin Choice

- Atorvastatin is the first-line option in most patients. If not tolerated consider lowering the dose or changing statin. If unable to tolerate a daily dose consider alternate day dosing or even twice a week dosing ("any" statin is better than no statin in high risk patients).
- Dose: Primary prevention (high risk patients) – 20 - 40mg atorvastatin
  Secondary prevention (known CVD high risk) - 20 – 80mg* (aim for maximum tolerated dose)

Statin potency table[1]

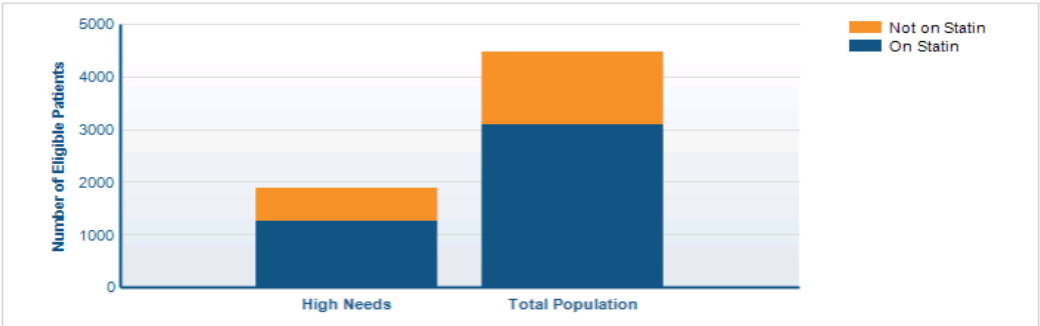
Treatment intensity	Pravastatin	Atorvastatin	Rosuvastatin	Simvastatin	% ↓ LDL-C
Low	20 mg			10 mg	30%
Medium	40 mg	10 mg		20 mg	38%
Medium	80 mg	20 mg	5 mg	40 mg	41%
High		40 mg	10 mg	80 mg	47%
High		80 mg	20 mg		55%
Very high			40 mg		63%

***Simvastatin 80 mg daily, may be associated with an increased risk of muscle-related adverse effects, particularly in patients > 65 years old (consider dose reductions in older patients). Consider switching to atorvastatin if higher doses of simvastatin required.**

TeAHN statin data

At TeAHN, in respect to patients with very high CVD risk, **69%** of all patients and **66%** of high needs patient are currently prescribed statin medication. This data is available for your individual practice (linked to NHIs).
Note, patients considered for therapy but who declined due to individual circumstances are included in the data.

Statin status of patients with CVR ≥ 20% (Te Awakairangi Health Network, 2018)



	Eligible	On Statin	Not On Statin	Achievement
High Needs	1882	1252	630	**66.52%**
Total Population	4469	3092	1377	**69.19%**

Data extracted from *bestpracticeintelligence*

Managing statin-associated symptoms:

This bulletin does not list all the adverse effects associated with statins (for further information on these refer to www.nzformulary.org). It is estimated that muscle symptoms (aches and weakness, not necessarily accompanied by a rise in creatinine kinase) affects 7% to 29% of people. A recent bpac article[3] suggested the following approach when patients reported a statin symptom:

- Assess for "true" intolerance (e.g. rise in CK in those reporting muscle pain/weakness/tenderness, LFTs if suspect hepatotoxicity)
- Check for drug interactions that could have increased the statin effect
- Reassure patient about statin safety
- Stop the statin and check for resolution of symptoms (in 2 to 4 weeks)
- If symptoms had resolved, try re-starting the statin
- If symptoms recur consider dose reduction, switching statin, or alternate day dosing (or twice weekly)
- Some patients tolerate low dose pravastatin
- "Pulse" therapy is also useful – where statin taken for a specific time period (e.g. 3 months) then take a break (e.g. one month) and repeat

Medication interactions

- Statins, in particular simvastatin, have some significant and serious drug interactions.
- Always check for medicine interactions prior to starting a statin or when introducing a new medication to a patient already on a statin (use the interaction checker on www.nzf.org.nz).
- Simvastatin is contraindicated in combination with some medicines e.g. erythromycin, clarithromycin, azole antifungals, ciclosporin (all potent CYP3A4 inhibitors).
- For other medicines (e.g. diltiazem, verapamil, amlodipine, amiodarone) a maximum dose of simvastatin 20mg is recommended when co-prescribed.

References:

1. Consensus statement: Cardiovascular Disease Risk Assessment and Management for Primary Care. Ministry of Health, February 2018. https://www.health.govt.nz/publication/cardiovascular-disease-risk-assessment-and-management-primary-care (Accessed on 21/02/18)
2. Cardiovascular Disease Risk Assessment and Management – what's new in cardiovascular risk assessment and management? NZ Heart Foundation, February 2018 https://www.heartfoundation.org.nz/professionals/health-professionals/cvd-consensus-summary (Accessed on 21/02/18)
3. Prescribing statins to reduce cardiovascular risk. Best Practice Journal, 8 September 2017. https://bpac.org.nz/2017/statins.aspx (Accessed on 17/02/18)