






# Dyslipidaemia

Dyslipidaemia is a well-established risk factor for CVD and statins have proven benefits in CVD risk reduction. However, lipid-lowering drugs are not without side effects and cost the PBS more than \$1 billion annually, with over 30 million prescriptions dispensed in 2017-18. One of the major challenges for GP registrars moving from the hospital environment into general practice is the management of chronic disease, including risk factor modification. Management of dyslipidaemia as part of absolute CVD risk is a new area of practice for many registrars.

<b>TEACHING AND LEARNING AREAS</b> 	<ul style="list-style-type: none"> <li>• Types of dyslipidaemia, including <a href="#">familial hypercholesterolaemia</a></li> <li>• How to calculate <a href="#">absolute CVD risk</a></li> <li>• Non-pharmacological treatment of dyslipidaemia</li> <li>• Medications, including choice of agent and <a href="#">common side effects</a></li> <li>• Indications for referral</li> <li>• <a href="#">Screening for dyslipidaemia, and monitoring after treatment</a></li> <li>• Evidence-based guidelines – see below</li> </ul>						
<b>PRE-SESSION ACTIVITIES</b> 	<ul style="list-style-type: none"> <li>• <a href="#">Managing lipids – NPS Medicine Wise</a> – a great summary on using statins for CVD risk reduction</li> </ul>						
<b>TEACHING TIPS AND TRAPS</b> 	<ul style="list-style-type: none"> <li>• <a href="#">Choosing Wisely - Don't commence therapy for hypertension or hyperlipidaemia without first assessing the absolute risk of a CV event</a></li> <li>• Unless high risk, lipids don't need to be ordered every year!</li> <li>• Over-prescribing in primary prevention, and under-prescribing in secondary prevention, are both common</li> <li>• Statins differ in potency (and price!), but none have a proven advantage in efficacy</li> <li>• The true incidence of statin-associated muscle symptoms (SAMS) is low (1-5%)</li> <li>• High doses of statins are more likely to cause myopathy and other side effects – start with a low dose unless the patient has had a CV event</li> <li>• Long term adherence to lipids lowering therapy is poor</li> </ul>						
<b>RESOURCES</b> 	<table border="0"> <tbody> <tr> <td data-bbox="343 1668 422 1702"><b>Read</b></td> <td data-bbox="438 1668 1505 1848"> <ul style="list-style-type: none"> <li>• <a href="#">Heart Foundation Absolute risk management guidelines - primary cardiovascular disease prevention</a></li> <li>• <a href="#">Heart Foundation Reducing risk in heart disease, updated 2012 - secondary prevention</a></li> <li>• <a href="#">RACGP Red Book – Cholesterol and Lipids</a></li> <li>• <a href="#">PBS Criteria for prescribing lipid lowering agents</a></li> </ul> </td> </tr> <tr> <td data-bbox="343 1848 422 1881"><b>Watch</b></td> <td data-bbox="438 1848 1505 1881"> <ul style="list-style-type: none"> <li>• <a href="#">Statin Claims Rejected</a></li> </ul> </td> </tr> <tr> <td data-bbox="343 1892 422 1926"><b>Listen</b></td> <td data-bbox="438 1892 1505 1926"> <ul style="list-style-type: none"> <li>• <a href="#">ABC Radio National – Rethinking Statins</a></li> </ul> </td> </tr> </tbody> </table>	<b>Read</b>	<ul style="list-style-type: none"> <li>• <a href="#">Heart Foundation Absolute risk management guidelines - primary cardiovascular disease prevention</a></li> <li>• <a href="#">Heart Foundation Reducing risk in heart disease, updated 2012 - secondary prevention</a></li> <li>• <a href="#">RACGP Red Book – Cholesterol and Lipids</a></li> <li>• <a href="#">PBS Criteria for prescribing lipid lowering agents</a></li> </ul>	<b>Watch</b>	<ul style="list-style-type: none"> <li>• <a href="#">Statin Claims Rejected</a></li> </ul>	<b>Listen</b>	<ul style="list-style-type: none"> <li>• <a href="#">ABC Radio National – Rethinking Statins</a></li> </ul>
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<b>FOLLOW UP/ EXTENSION ACTIVITIES</b> 	<ul style="list-style-type: none"> <li>• Read recent Lancet review - <a href="#">Interpretation of the evidence for the efficacy and safety of statin therapy</a></li> <li>• Registrar to undertake the MCQs and discuss</li> </ul>						

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## Clinical Reasoning Challenge

1. Shane is a 54-year-old accountant with a high absolute CV risk and you wish to start him on a statin for hypercholesterolaemia. Which of the following is MOST CORRECT?
  - a. Atorvastatin 40mg/day is an appropriate starting regime
  - b. Rosuvastatin is the most effective statin in reducing CV events
  - c. The maximum effect of a statin on lipid profile occurs within three weeks of commencement
  - d. Statin-related myopathy is uncommon, occurring in about 1% of patients
  - e. LFTs should be checked every six months for two years
2. Craig Frost, aged 57, is a cattle farmer and presents to you for a check-up. Two years ago he had blood tests done which showed normal renal function, fasting BSL of 5.4 and lipids - TC 6.4, TG 2.3, HDL 1.3, LDL 3.3. He is normotensive, is not obese, doesn't smoke and has no family history of heart disease. His CV risk at the time was calculated as 7% (low). What is the MOST APPROPRIATE management strategy at this point?
  - a. Commence simvastatin 20 mg/d as primary prevention
  - b. Repeat his lipid profile and re-assess his CV risk
  - c. Provide lifestyle advice and recommend repeating lipids in 3 years
  - d. Commence a fibrate for hypertriglyceridaemia
  - e. Advise him that further screening for lipids is unnecessary as his CV risk is low
3. Denise Ruthers, aged 69, has a past history of poorly-controlled hypertension and asthma. She returns to see you after recent blood tests. These show eGFR of 76, fasting BSL of 5.7 and lipids - TC 6.7, TG 2.2, HDL 0.9, LDL 4.3. She doesn't smoke and has no family history of heart disease. Today her BP is 154/92, BMI 27, and her CV risk is calculated as 16% (high). You wish to start her on lipid-lowering medication. Which of the following is MOST CORRECT?
  - a. She does not qualify for lipid-lowering medication according to the PBS criteria because she does not have diabetes
  - b. She should be advised that statin therapy is associated with an increased risk of diabetes
  - c. Atorvastatin is the most effective statin in reducing CV events
  - d. She should be started on high dose statins due to her high absolute CV risk
  - e. She will need annual lipid monitoring for the rest of her life

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## ANSWERS

1. Shane is a 54 year old accountant with a high absolute CV risk and you wish to start him on a statin for hypercholesterolaemia. Which of the following is MOST CORRECT?

Option d. Statin-related myopathy is uncommon, occurring in about 1% of patients

2. Craig Frost, aged 57, is a cattle farmer and presents to you for a check-up. Two years ago he had blood tests done which showed normal renal function, fasting BSL of 5.4 and lipids - TC 6.4, TG 2.3, HDL 1.3, LDL 3.3. He is normotensive, is not obese, doesn't smoke and has no family history of heart disease. His CV risk at the time was calculated as 7% (low). What is the MOST APPROPRIATE management strategy at this point?

Option c. Provide lifestyle advice and recommend repeating lipids in three years

3. Denise Ruthers, aged 69, has a past history of poorly-controlled hypertension and asthma. She returns to see you after recent blood tests. These show eGFR of 76, fasting BSL of 5.7 and lipids - TC 6.7, TG 2.2, HDL 0.9, LDL 4.3. She doesn't smoke and has no family history of heart disease. Today her BP is 154/92, BMI 27, and her CV risk is calculated as 16% (high). You wish to start her on lipid-lowering medication. Which of the following is MOST CORRECT?

Option b. She should be advised that statin therapy is associated with an increased risk of diabetes