

Putting NICE guidance into practice

# **Costing report: Lipid modification**

**Implementing the NICE guideline on  
lipid modification (CG181)**

Published: July 2014

This costing report accompanies [Lipid modification: cardiovascular risk assessment and the modification of blood lipids for the primary and secondary prevention of cardiovascular disease](#) (NICE clinical guideline 181).

**Issue date:** July 2014

### **This report is written in the following context**

This report represents the view of NICE, which was arrived at after careful consideration of the available data and through consulting with healthcare professionals. It should be read in conjunction with the NICE guideline. The report and template are implementation tools and focus on the recommendations that were considered to have a significant impact on national resource utilisation.

The cost and activity assessments in the report are estimates based on a number of assumptions. They provide an indication of the likely impact and are not absolute figures. Assumptions used in the report are based on assessment of the national average. Local practice may be different from this, and the template can be amended to reflect local practice.

Implementation of the guidance is the responsibility of local commissioners and/or providers. Commissioners and providers are reminded that it is their responsibility to implement the guidance, in their local context, in light of their duties to have due regard to the need to eliminate unlawful discrimination, advance equality of opportunity and foster good relations. Nothing in this costing tool should be interpreted in a way that would be inconsistent with compliance with those duties.

### **National Institute for Health and Care Excellence**

Level 1A  
City Tower  
Piccadilly Plaza  
Manchester M1 4BT

[www.nice.org.uk](http://www.nice.org.uk)

© National Institute for Health and Care Excellence, 2014. All rights reserved. This material may be freely reproduced for educational and not-for-profit purposes. No reproduction by or for commercial organisations, or for commercial purposes, is allowed without the express written permission of NICE.

## Contents

Executive summary.....	4
<i>Significant resource-impact recommendations</i> .....	4
<i>Net resource impact</i> .....	5
<i>Costs over time</i> .....	6
<i>Benefits and savings</i> .....	6
<i>Local costing template</i> .....	7
1 Introduction.....	8
1.1 <i>Supporting implementation</i> .....	8
1.2 <i>What is the aim of this report?</i> .....	8
1.3 <i>Epidemiology of lipid modification</i> .....	9
1.4 <i>Current service provision</i> .....	9
2 Costing methodology.....	10
2.1 <i>Process</i> .....	10
2.2 <i>Scope of the cost-impact analysis</i> .....	10
2.3 <i>Basis of unit costs</i> .....	13
3 Significant resource-impact recommendations.....	13
3.1 <i>Recommendation 1.3.18 for primary prevention of CVD</i> .....	13
3.2 <i>Recommendations 1.3.18 and 1.3.20 for primary and secondary prevention of CVD</i> .....	17
3.4 <i>Benefits and savings</i> .....	19
4 Costs over time.....	20
5 Sensitivity analysis.....	21
5.1 <i>Methodology</i> .....	21
5.2 <i>Impact of sensitivity analysis on costs</i> .....	21
6 Impact of guidance for commissioners.....	22
7 Conclusion.....	23
7.1 <i>Cost per annum per 100,000 population</i> .....	23
7.2 <i>Next steps</i> .....	24
Appendix A: Approach to costing guidelines.....	25
Appendix B: Results of sensitivity analysis.....	26

## Executive summary

This costing report looks at the resource impact of implementing the NICE guideline on [lipid modification](#) in England.

The costing method adopted is outlined in appendix A; it uses the most accurate data available, was produced in conjunction with key clinicians, and reviewed by clinical and financial professionals.

### ***Significant<sup>1</sup> resource-impact recommendations***

This report focuses on the recommendations that are considered to have the greatest resource impact, and therefore require the most additional resources to implement or can potentially generate the biggest savings. They are:

- Offer atorvastatin 20 mg for the primary prevention of cardiovascular disease (CVD) to people who have a 10% or greater 10-year risk of developing CVD. Estimate the level of risk using the QRISK2 assessment tool. **[1.3.18]**
- Start statin treatment in people with CVD with atorvastatin 80 mg<sup>2</sup>. Use a lower dose of atorvastatin if any of the following apply:
  - potential drug interactions
  - high risk of adverse effects
  - patient preference. **[1.3.20]**

---

<sup>1</sup> The following impacts have been defined as significant:

- where the number of people affected by the guidance recommendations is estimated to be over 300 (equivalent to 1 patient per 170,000; in practice, smaller populations may have no patients or possibly more than 1, particularly if it is a disease that runs in families and there is a cluster in 1 area)
- where initial costing work indicates that the national cost is more than £1 million (equivalent to £2000 per 100,000 population).

<sup>2</sup> At the time of publication (July 2014), atorvastatin did not have a UK marketing authorisation for this indication. The prescriber should follow relevant professional guidance, taking full responsibility for the decision. Informed consent should be obtained and documented. See the General Medical Council's [Good practice in prescribing and managing medicines and devices](#) for further information.

## **Net resource impact**

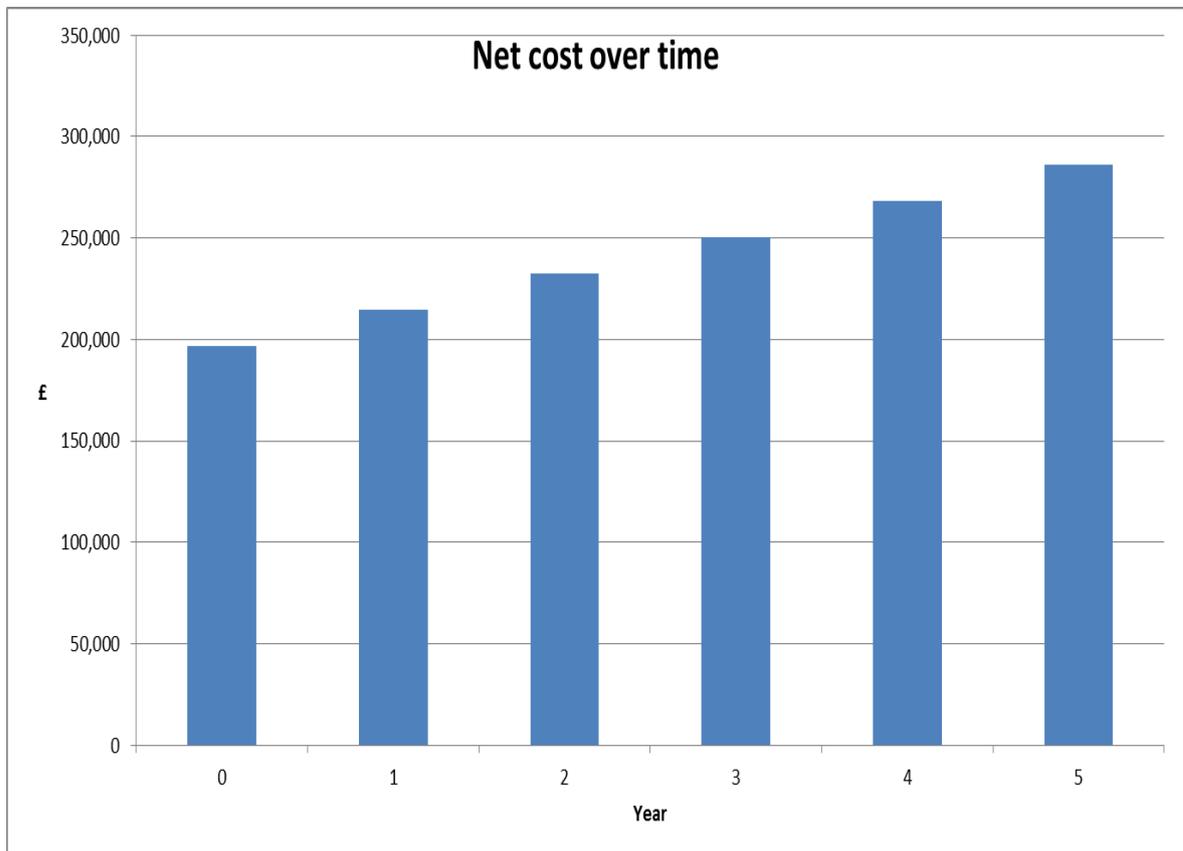
The annual change in resource use arising from implementing the recommendations considered in the costing analysis is summarised below.

### **Costs per 100,000 population per annum**

<b>Recommendation</b>	<b>Recommendation number</b>	<b>£000's</b>
<p><b>Impact on new population:</b> Offer atorvastatin 20 mg for the primary prevention of CVD to people who have a 10% or greater 10-year risk of developing CVD. Estimate the level of risk using the QRISK2 assessment tool.</p>	1.3.18	75
<p><b>Impact on current population:</b> Offer atorvastatin 20 mg for the primary prevention of CVD to people who have a 10% or greater 10-year risk of developing CVD. Estimate the level of risk using the QRISK2 assessment tool.</p> <p>Start statin treatment in people with CVD with atorvastatin 80 mg<sup>1</sup>. Use a lower dose of atorvastatin if any of the following apply:</p> <ul style="list-style-type: none"> <li>• potential drug interactions</li> <li>• risk of adverse events</li> <li>• patient preference.</li> </ul> <p><sup>1</sup> At the time of publication (July 2014), atorvastatin did not have a UK marketing authorisation for this indication. The prescriber should follow relevant professional guidance, taking full responsibility for the decision. Informed consent should be obtained and documented. See the General Medical Council's <a href="#">Good practice in prescribing and managing medicines and devices</a> for further information.</p>	<p>1.3.18</p> <p><b>and</b></p> <p>1.3.20</p>	14
<b>Total cost</b>		<b>89</b>

## **Costs over time**

It is anticipated that implementation of this guideline will occur over a period of time. Expert opinion suggests the best estimate is equally over a 5-year period. The costs over time are set out in the graph below.



## **Benefits and savings**

Implementing the clinical guideline may result in the following saving and benefits:

### **Saving**

- It estimated (within the net resource impact) that there will savings from CVD events avoided of £58,000 per 100,000 population.

### **Benefits**

In additional to the financial saving stated above, implementing this guideline is anticipated to achieve the following benefits:

- a reduction in the number of deaths due to CVD events

- improved quality of life for people with CVD
- reduced side effects for people taking statins.
- may reduce accident and emergency department attendances
- implementation of the guideline is likely to have wider societal benefits in terms of people being able to work for longer and a reduction in time off work due to ill health.

### ***Local costing template***

The costing template produced to support this guideline enables organisations in England, Wales and Northern Ireland to estimate the impact locally and replace variables with ones that depict the current local position. A sample calculation using this template showed that additional costs of £89,000 could be incurred for a population of 100,000.

# 1 Introduction

## 1.1 *Supporting implementation*

1.1.1 The NICE clinical guideline on [lipid modification](#) is supported by the following implementation tools:

- costing tools
  - a costing report; this document
  - a costing template; a spreadsheet that can be used to estimate the local cost of implementation
- baseline assessment tool; assess your baseline against the recommendations in the guidance in order to prioritise implementation activity, including clinical audit
- clinical audit tool; measure current practice against the guidance and identify areas in which practice can be improved
- The NICE commissioning guide on [Integrated commissioning for the prevention of cardiovascular disease](#)

## 1.2 *What is the aim of this report?*

1.2.1 This report provides estimates of the cost impact per 100,000 population arising from implementation of guidance on [lipid modification](#). These estimates are based on assumptions made about current practice and predictions of how current practice might change following implementation.

1.2.2 This report aims to help organisations plan for the financial implications of implementing NICE guidance.

1.2.3 This report does not reproduce the NICE guideline [lipid modification](#) and should be read in conjunction with it.

1.2.4 The costing template that accompanies this report is designed to help those assessing the resource impact at a local level in England, Wales or Northern Ireland.

### **1.3 *Epidemiology of lipid modification***

- 1.3.1 CVD describes disease of the heart and blood vessels caused by the process of atherosclerosis.
- 1.3.2 Lipid modification involves having a cardiovascular risk assessment and modifying blood lipids for the primary and secondary prevention of CVD.
- 1.3.3 The guideline states that CVD is the leading cause of death in England and Wales, accounting for almost one-third of deaths<sup>3</sup>. In 2010, 180,000 people died from CVD – around 80,000 of these deaths were caused by coronary heart disease and 49,000 were caused by strokes.
- 1.3.4 CVD has significant cost implications and was estimated to cost the NHS in England almost £6,940 million in 2003, rising to £7,880 million in 2010.

### **1.4 *Current service provision***

- 1.4.1 Strategies for the primary prevention of CVD have focused on interventions to reduce risk factors for CVD and on identifying, assessing and treating people who are at high risk of developing CVD but currently have no symptoms. The risk assessment stage of the [NHS Health Check](#) (formerly known as the Vascular Check Programme) uses a risk assessment tool for people aged 40–74 years to calculate their 10-year risk of CVD. In both primary and secondary prevention, the focus is on dealing with modifiable risk factors such as smoking, high blood pressure, blood lipids, physical inactivity and obesity.
- 1.4.2 Services for lipid modification are mainly delivered in primary care by GPs particularly for primary prevention. However, some treatments for secondary prevention may start in secondary and

---

<sup>3</sup> [UK National Statistics](#)

tertiary care. Services are commissioned by clinical commissioning groups.

## **2 Costing methodology**

### **2.1 Process**

- 2.1.1 We use a structured approach for costing clinical guidelines (see appendix A).
- 2.1.2 We have to make assumptions in the costing model. These are tested for reasonableness with members of the Guideline Development Group (GDG) and key clinical practitioners in the NHS.
- 2.1.3 Local users can assess local cost impact, using the costing template as a starting point, and update assumptions to reflect local circumstances.

### **2.2 Scope of the cost-impact analysis**

- 2.2.1 The guideline offers best practice advice on lipid modification
- 2.2.2 The guidance does not cover:
  - people with familial hypercholesterolaemia
  - people with familial clotting disorders that increase cardiovascular risk
  - people with other genetic disorders that increase cardiovascular risk
  - people at high risk of CVD or abnormalities of lipid metabolism as a result of endocrine or other secondary disease processes other than diabetes
  - people receiving renal replacement therapy.

Therefore, these issues are outside the scope of the costing work.

2.2.3 We worked with the GDG and other professionals to identify the recommendations that would have the most significant resource impact (see table 1 below). Costing work has focused on these recommendations.

**Table 1 Recommendations with a significant resource impact**

Recommendation	Recommendation number	Guideline key priority?
Offer atorvastatin 20 mg for the primary prevention of CVD to people who have a 10% or greater 10-year risk of developing CVD. Estimate the level of risk using the QRISK2 assessment tool.	1.3.18	✓
Start statin treatment in people with CVD with atorvastatin 80 mg <sup>1</sup> . Use a lower dose of atorvastatin if any of the following apply: <ul style="list-style-type: none"> <li>• potential drug interactions</li> <li>• risk of adverse events</li> <li>• patient preference.</li> </ul> <sup>1</sup> At the time of publication (July 2014), atorvastatin did not have a UK marketing authorisation for this indication. The prescriber should follow relevant professional guidance, taking full responsibility for the decision. Informed consent should be obtained and documented. See the General Medical Council's <a href="#">Good practice in prescribing and managing medicines and devices</a> for further information.	1.3.20	✓

2.2.4 Eight of the recommendations in the guideline have been identified as key priorities for implementation. Both of the recommendations considered to have a significant resource impact are key priorities for implementation.

**Recommendations identified as key priorities for implementation that have not been costed**

2.2.5 Recommendation 1.1.1 suggests using a systematic strategy to identify people who are likely to be at high risk. This will be done as part of the national [NHS Health Check](#) programme and so is not anticipated to have a significant resource impact because it is already in place.

- 2.2.6 Recommendation 1.1.4, which prioritises people for a full formal risk assessment if their estimated 10-year risk of CVD is 10% or more, is not anticipated to have a significant resource impact because it is envisaged that this can be achieved within existing healthcare resources, by either a GP or a practice nurse.
- 2.2.7 Use of the QRISK2 risk assessment tool to assess CVD risk for the primary prevention of CVD in people up to and including age 84 years (recommendation 1.1.8) is unlikely to have a significant resource impact, because expert opinion suggests the tool is already widely used.
- 2.2.8 Recommendation 1.3.4 advises the use of non-high-density lipoprotein (non-HDL) cholesterol rather than low-density lipoprotein (LDL) cholesterol. This is a significant change in clinical practice. However, it is not anticipated to have a significant resource impact because the cost of the test is the same. The key change is in the education of laboratory and clinical staff in the reporting and interpretation of the results of the new test where costs are not anticipated.
- 2.2.9 Recommendation 1.3.28 states 'measure total cholesterol, HDL cholesterol and non-HDL cholesterol in all people who have been started on high-intensity statin treatment at 3 months of treatment and aim for a greater than 40% reduction in non-HDL cholesterol. If a greater than 40% reduction in non-HDL cholesterol is not achieved:
- discuss adherence and timing of dose
  - optimise adherence to diet and lifestyle measures
  - consider increasing dose if started on less than atorvastatin 80 mg and the person is judged to be at higher risk because of comorbidities, risk score or using clinical judgement'.

This recommendation is not anticipated to have a significant resource impact because this may lead reduce the level of future monitoring.

- 2.2.10 We have limited the consideration of costs and savings to direct costs to the NHS that will arise from implementation. We have not included consequences for the individual, the private sector or the not-for-profit sector. If applicable, any realisable cost savings arising from a change in practice have been offset against the cost of implementing the change.

### **2.3 *Basis of unit costs***

- 2.3.1 If a national tariff price or indicative price exists for an activity, this has been used as the unit cost. This has then been inflated by the national average market forces factor.
- 2.3.2 Using these prices ensures that the costs in the report are the cost to the CCG of commissioning predicted changes in activity at the tariff price, but may not represent the actual cost to individual trusts of delivering the activity.

## **3 Significant resource-impact recommendations**

### **3.1 *Recommendation 1.3.18 for primary prevention of CVD***

Offer atorvastatin 20 mg for the primary prevention of CVD to people who have a 10% or greater 10-year risk of developing CVD. Estimate the level of risk using the QRISK2 assessment tool.

#### **Background**

- 3.1.1 The previous guideline for lipid modification recommended that people identified as having a 20% or greater 10-year risk of developing CVD should be offered statin treatment for the primary

prevention of CVD and it was not specific about which risk assessment tool to use.

- 3.1.2 The new recommendation reduces the threshold from 20% to a 10% risk of developing CVD before statin treatment is offered for the primary prevention of CVD and specifically states that the QRISK2 assessment tool should be used to determine the risk of developing CVD within 10 years.

### **Assumptions made**

- 3.1.3 The following assumptions have been made in costing this recommendation:

- This section estimates the cost impact of the increased number of people who may take atorvastatin 20 mg as a result of the threshold being reduced from 20% to a 10% risk of developing CVD. The change in prescribing for people currently prescribed statins is dealt with in section 3.2.
- To assess the increased population eligible for statin treatment, we have estimated the increase based on the British Medical Journal's [Predicting the 10-year risk of cardiovascular disease in the UK: independent and external validation of an updated version of QRISK2](#).

Table 2 below sets out the change in risk percentage and the estimated eligible increase population.

**Table 2 Changes in the population eligible for primary prevention of CVD treatment with statins for a total population of 100,000**

Population group	Population (a)	Current practice 20% risk threshold		Future practice 10% risk threshold		Change in eligible population (e - c)
		% risk of CVD (b)	Eligible population (c) (a x b)	% risk of CVD (d)	Eligible population (e) (a x d)	
Women aged 30 to 85 years	30392	10.9	3313	22.2	6747	3434
Men aged 30 to 85 years	30329	12.9	3912	28.4	8613	4701
<b>Total</b>			<b>7225</b>		<b>15360</b>	<b>8135</b>
<b>Estimated number of people not taking their statins (20%)<sup>1</sup></b>						<b>1627</b>
<b>Increase in number of people taking statins</b>						<b>6508</b>
<p>1. There are a number of people who will be prescribed statins but will not take their medication. Expert opinion suggests that over a period of time this will be approximately 20%. As these people are not expected to return for further prescriptions, no future costs are anticipated.</p>						

- It is expected that the additional eligible population will be identified as part of the national [NHS Health Check](#) programme, which covers the population in the 40–74 age group.
- All newly identified people will receive atorvastatin.
- Based on expert opinion, it is anticipated that up to 20% of the increased population will not adhere to their medication. As these people are not expected to return for further prescriptions there will be no costs for future treatment.
- Based on expert opinion, it is anticipated the recommendation will take 5 years to be fully implemented in 5 years.
- Based on expert opinion, it is assumed that the number of people outside the age range 30–85 who will have a 10% or greater 10-year risk of developing CVD will be small and have no significant impact on cost.
- It is assumed that any additional GP appointments will be managed within existing resources.

## Cost summary

3.1.4 The net cost of offering high-intensity statin treatment for the primary prevention of CVD to people who have a 10% or greater 10-year risk of developing CVD (recommendation 1.3.18) is estimated at £74,900 for a population of 100,000 after 5 years when the assumptions in the model have been reached. This is summarised in table 3.

**Table 3 Net cost per 100,000 population per annum of offering high-intensity statin treatment for the primary prevention of CVD to people who have a 10% or greater 10-year risk of developing CVD (recommendation 1.3.18)**

	Current		Future		Change	
	Number of people	Cost (£000s)	Number of people	Cost (£000s)	Number of people	Cost (£000s)
People taking statins	7955	196.8	14463	330.1	6508	133.3
Reduction in CVD events (change only)					42	58.4
<b>Net cost/(saving)</b>						<b>74.9</b>

## Other considerations

- 3.1.5 The number of additional people who would be eligible to take statins is calculated using the QRISK2 assessment tool. If organisations are using a different assessment tool, the eligible population should be adjusted at a local level.
- 3.1.6 The costing model assumes additional GP appointments can be managed within existing resources; CCGs may wish to review this at a local level.
- 3.1.7 The costing model assumes implementation is spread equally over 5 years. CCGs may wish to review this at a local level.

### **3.2 Recommendations 1.3.18 and 1.3.20 for primary and secondary prevention of CVD**

- Offer atorvastatin 20 mg for the primary prevention of CVD to people who have a 10% or greater 10-year risk of developing CVD. Estimate the level of risk using the QRISK2 assessment tool. (1.3.18)
- Start statin treatment in people with CVD with atorvastatin 80 mg<sup>1</sup>. Use a lower dose of atorvastatin if any of the following apply:
  - potential drug interactions
  - risk of adverse events
  - patient preference. (1.3.20)

<sup>1</sup> At the time of publication (July 2014), atorvastatin did not have a UK marketing authorisation for this indication. The prescriber should follow relevant professional guidance, taking full responsibility for the decision. Informed consent should be obtained and documented. See the General Medical Council's Good practice in prescribing and managing medicines and devices for further information.

#### **Background**

- 3.2.1 Since the publication of the previous guideline for lipid modification, atorvastatin has come off-patent and is available at a reduced cost.
- 3.2.2 The previous guideline recommended simvastatin 40 mg for the primary and secondary prevention of CVD. The updated guideline changed the recommendation to using atorvastatin 20 mg for the primary prevention of CVD, and starting statin treatment in people with established CVD with atorvastatin 80 mg.

#### **Assumptions made**

- 3.2.3 The following assumptions have been made in costing this recommendation:
- The cost of these 2 recommendations relates to the existing population taking statins. The cost of new people taking statins is covered in section 3.1 above.
  - Current prescribing details are taken from an IMS Disease analyser query for the period April 2012 – March 2013.
  - Future prescribing proportions are based on expert opinion.

- Based on expert opinion, it is anticipated that the recommendation will be fully implemented in 5 years.

The change in the proportion of people taking different statins is set out in table 4 below.

**Table 4 Proportions of people taking different statins**

Statin	Prescribing proportions	
	Current %	Estimated future %
Atorvastatin	25	60
Fluvastatin	0.5	0.5
Pravastatin	5.5	5.5
Rosuvastatin	3	3
Simvastatin	66	31
<b>Total</b>	<b>100</b>	<b>100</b>

### **Cost summary**

The net cost of offering atorvastatin 20 mg for the primary prevention of CVD (recommendation 1.3.18) and starting statin treatment in people with established CVD with atorvastatin 80 mg (recommendation 1.3.20) is estimated at £14,400 for a population of 100,000 after 5 years when the assumptions in the model have been reached. This is summarised in table 5.

**Table 5 Net cost per 100,000 per annum of offering atorvastatin 20 mg for the primary prevention of CVD and starting statin treatment in people with CVD with atorvastatin 80 mg**

Drug	Annual drug cost <sup>1</sup> £ (a)	Current		Future		Change	
		Numbers of people (b)	Cost (£000s) (c) (a x b)	Numbers of people (d)	Cost (£000s) (e) (a x d)	Numbers of people (f) (d - b)	Cost (£000s) (g) (e - c)
Atorvastatin	18.48	1989	36.8	4773	88.2	2784	51.4
Fluvastatin	35.79	40	1.4	40	1.4	0	0
Pravastatin	20.02	437	8.7	437	8.7	0	0
Rosuvastatin	268.46	239	64.1	239	64.1	0	0
Simvastatin	13.32	5250	69.9	2466	32.9	(2784)	37.0
<b>Net cost/(saving)</b>		<b>7955</b>	<b>180.9</b>	<b>7955</b>	<b>195.3</b>		<b>14.4</b>

<sup>1</sup>Annual cost is a weighted average cost based on the percentage of each dose of the drug prescribed per the IMS Disease analyser and drug costs from the Electronic Drugs Tariff (see 'Unit costs' sheet of the Costing Template that accompanies this report).

### Other considerations

3.2.4 CCGs may wish to explore at a local level the current prescribing of rosuvastatin to seek assurance that it is appropriate. The sensitivity analysis reviewed the impact of a 50% reduction in the prescribing of rosuvastatin.

### 3.4 Benefits and savings

In addition to the financial savings stated above, implementing this guideline is anticipated to achieve the following benefits:

- a reduction in the number of deaths due to CVD events for people with established CVD
- improved quality of life for people with CVD
- reduced side effects for people taking statins
- may reduce accident and emergency department attendances
- implementation of the guideline is likely to have wider societal benefits in terms of people being able to work for longer and a reduction in time off work due to ill health.

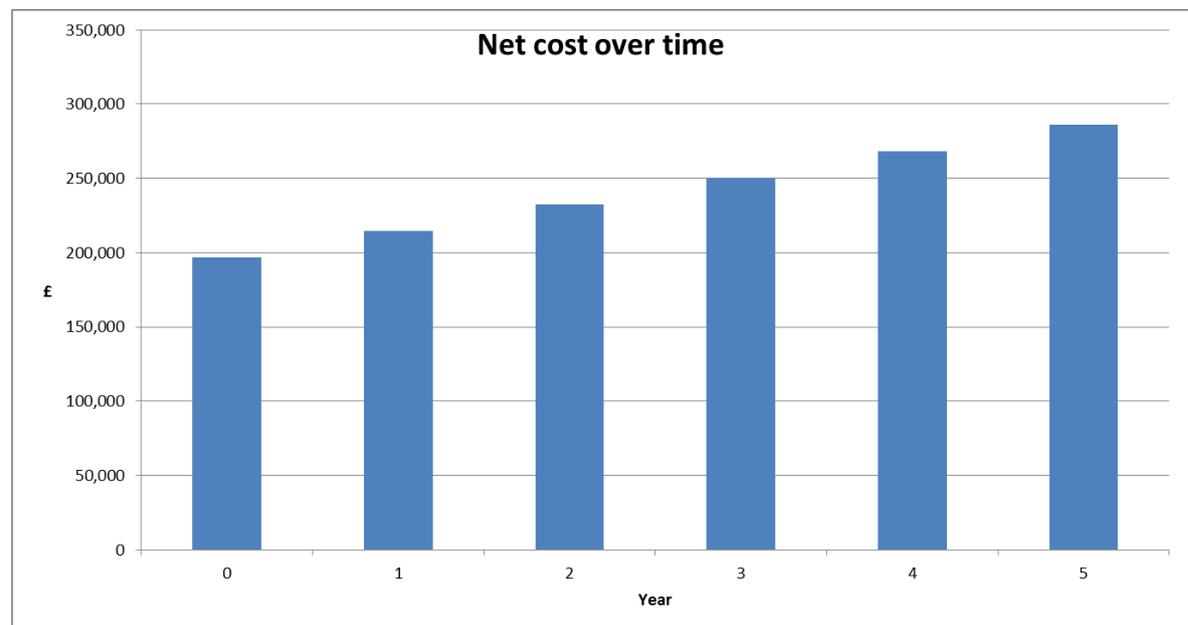
## 4 Costs over time

It is anticipated that implementation of this guideline will occur over a period of time. Expert opinion suggests that this will be over a 5-year period. Table 6 below sets out the costs over time (per annum per 100,000 population) of implementing this guideline.

**Table 6 Costs over time of implementing this guideline per annum per 100,000 population**

Year	Estimated cost £000s	Incremental costs £000s
0	196.8	—
1	214.6	17.8
2	232.5	35.7
3	250.2	53.5
4	268.2	71.3
5	286.0	89.2

4.1.1 The costs over time are set in the graph below.



## **5 Sensitivity analysis**

### **5.1 Methodology**

- 5.1.1 There are a number of assumptions in the model for which no empirical evidence exists; these are therefore subject to a degree of uncertainty.
- 5.1.2 Appropriate minimum and maximum values of variables were used in the sensitivity analysis to assess which variables have the biggest impact on the net cost or saving. This enables users to identify the significant cost drivers.
- 5.1.3 It is not possible to arrive at an overall range for total cost because the minimum or maximum of individual lines are unlikely to occur simultaneously. We undertook one-way simple sensitivity analysis, altering each variable independently to identify those that have greatest impact on the calculated total cost.
- 5.1.4 Appendix B contains a table detailing all variables modified, and the key conclusions drawn are discussed below.

### **5.2 Impact of sensitivity analysis on costs**

#### **GP appointments needed to meet increase in demand**

- 5.2.1 Expert opinion suggests that there is insufficient capacity within existing primary care resources to meet the increase in demand as a result of implementing the guideline.
- 5.2.2 The sensitivity analysis explores the effect of a 25% additional requirement for GP appointments. The results show that costs would increase by £55,320 if 25% extra capacity was needed to meet demand per 100,000 population.

#### **Future prescribing of rosuvastatin**

- 5.2.3 At the time of publication of the guideline, rosuvastatin is the only statin still on patent. This patent is due to expire in 2016. Many

prescribing advisers are targeting the inappropriate use of rosuvastatin in their localities and its replacement by generic alternatives such as atorvastatin. Expert opinion suggests that this could reduce the future prescribing of rosuvastatin by up to 50%.

- 5.2.4 The sensitivity analysis showed that a reduction in the future prescribing of rosuvastatin by 50% (and replacement with atorvastatin) could lead to additional savings of £32,000 per 100,000 population.

### **Reduction in CVD events avoided**

- 5.2.5 The greatest number of CVD events will be avoided in those people at the greatest risk. Expert opinion suggests that it is unlikely that all of those at the highest risk will be identified for treatment, so the number of CVD events avoided is likely to be less. Expert opinion suggests that the reduction in CVD events avoided may be up to 50%.

- 5.2.6 A 20% increase or decrease was explored in the sensitivity analysis.

- 5.2.7 This would increase or decrease costs by £11,700 per 100,000 population respectively..

## **6 Impact of guidance for commissioners**

- 6.1.1 This guidance is likely to have a significant impact on CCGs prescribing budgets for commissioners. However, it is anticipated that this increase will be after 5 years when the assumptions in the costing model have been reached.

- 6.1.2 CCGs may wish to ensure that local commissioning arrangements optimise the uptake of health checks for their local population, in conjunction with local authority partners.

## 7 Conclusion

### 7.1 Cost per annum per 100,000 population

7.1.1 Using the significant resource-impact recommendations given in table 1 and assumptions specified in section 3, we have estimated the annual impact of implementing these recommendations in England to be a cost of £89,000 for a population of 100,000 after 5 years when the assumptions in the costing model have been reached. Table 7 shows the breakdown of the cost for each significant resource-impact recommendation.

**Table 7 Cost of each significant resource-impact recommendation per 100,000 population**

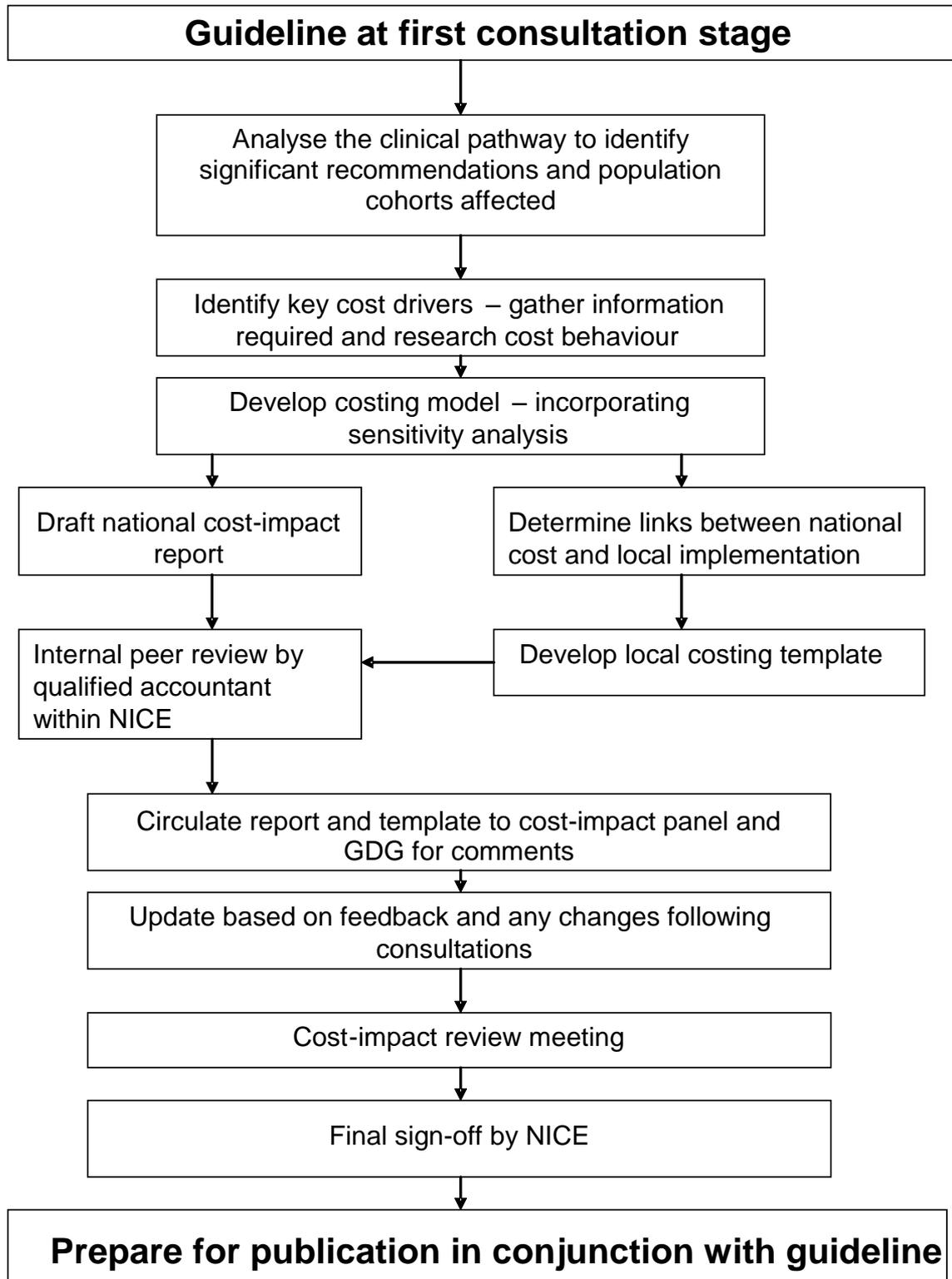
Recommendation	Recommendation number	£000's
<b>Impact on new population:</b> Offer atorvastatin 20 mg for the primary prevention of CVD to people who have a 10% or greater 10-year risk of developing CVD. Estimate the level of risk using the QRISK2 assessment tool.	1.3.18	75
<b>Impact on current population:</b> Offer atorvastatin 20 mg for the primary prevention of CVD to people who have a 10% or greater 10-year risk of developing CVD. Estimate the level of risk using the QRISK2 assessment tool.  Start statin treatment in people with CVD with atorvastatin 80 mg <sup>1</sup> . Use a lower dose of atorvastatin if any of the following apply: <ul style="list-style-type: none"> <li>• potential drug interactions</li> <li>• risk of adverse events</li> <li>• patient preference.</li> </ul> <p><sup>1</sup> At the time of publication (July 2014), atorvastatin did not have a UK marketing authorisation for this indication. The prescriber should follow relevant professional guidance, taking full responsibility for the decision. Informed consent should be obtained and documented. See the General Medical Council's <a href="#">Good practice in prescribing and managing medicines and devices</a> for further information.</p>	1.3.18  <b>and</b>  1.3.20	14
<b>Total cost</b>		<b>89</b>

7.1.2 The costs presented are estimates and should not be taken as the full cost of implementing the guideline.

## **7.2 *Next steps***

7.2.1 The local costing template produced to support this guideline enables organisations to estimate the impact locally and replace variables with ones that depict the current local position

## Appendix A: Approach to costing guidelines



## Appendix B: Results of sensitivity analysis

**Table 1. Individual variable sensitivity**

	Baseline value	Minimum value	Maximum value	Recurrent costs			Change £
				Baseline costs £	Minimum costs £	Maximum costs £	
GP appointments required to meet increase in demand *	0%	0%	25%	89,225	89,225	144,545	55,320
CVD events avoided	100%	80%	120%	89,225	100,907	77,544	-23,363
Future prescribing of rosuvastatin	3%	1.5%	3%	89,225	57,194	89,225	32,031

\* This is provided for illustration purposes only. Each CCG would need to evaluate practice in their local area to ascertain if there is enough capacity to meet the increase in demand.

