

Putting NICE guidance into practice

**Costing report: menopause:  
diagnosis and management**  
**Implementing the NICE guideline on  
menopause (NG23)**

Published: November 2015

This costing report accompanies [\[menopause: diagnosis and management\]](#)

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### **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)

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## Executive summary

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

### ***Significant<sup>1</sup> cost and savings recommendations***

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

- decrease the number of follicle-stimulating hormone (FSH) tests in women
- increase use of transdermal hormone replacement therapy (HRT).

### ***Estimated savings***

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

**Table 1 Estimated cost and savings of recommendations for menopause in women for the population of England**

<b>Recommendation</b>	<b>Cost impact (£000)</b>
Decrease the number of FSH tests in women	9,600
Offer women transdermal HRT	(900)
<b>Forecast saving</b>	<b>8,700</b>

### ***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 savings of £16,500 could be made for a population of 100,000.

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

- 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 an area)
- initial cost and saving work indicates that the national cost is more than £1 million (equivalent to £2000 per 100,000 population).

# 1 Introduction

## 1.1 *Supporting implementation*

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

- costing tools
  - a national costing report; this document
  - a costing template; a spreadsheet that can be used to estimate the local cost of implementation
- implementation chapter; for more information on how to implement the recommendations
- baseline assessment tool; assess your baseline against the recommendations in the guideline in order to prioritise implementation activity, including clinical audit.

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

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

1.2.2 This report does not reproduce the NICE guideline on [menopause](#) and should be read in conjunction with it.

1.2.3 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 menopause*

1.3.1 Menopause is a biological stage in a woman's life. The average age of women who have a natural menopause is 51 years, although this can vary depending on several factors, including lifestyle and ethnicity.

1.3.2 Premature ovarian insufficiency is usually defined as menopause occurring before the age of 40. It can occur naturally or as a result

of treatment. A woman is defined as postmenopausal from 1 year after her last period.

- 1.3.3 The estimated number of women with menopause aged 50 years or older is approximately 1.5 million for the population of England.

## **1.4 Current service provision**

- 1.4.1 Before publication of the [Risks and benefits of estrogen plus progestin in healthy postmenopausal women](#) (Women's Health Initiative) and [Breast cancer and hormone replacement therapy in the Million Women Study](#) (University of Oxford) many women used HRT to control their menopause symptoms. After the publication of these studies, which reported the risks and benefits of HRT, there was a significant reduction in women using HRT in the UK.

- 1.4.2 Although many women are thought to manage their menopausal symptoms without any contact with a healthcare professional, expert clinical opinion suggests some women ask for support when they are seeing a healthcare professional for another reason.

- 1.4.3 The information and support offered to women during and after menopause is variable and it is currently thought that many women want more support for managing menopausal symptoms from their GP or practice nurse.

- 1.4.4 Current treatments used by women for their menopausal symptoms include HRT, clonidine, vaginal lubricants, complementary therapies, herbal remedies and some types of antidepressants.

## **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 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.

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

#### **3.1 *Recommendation 1.2.5: follicle-stimulating hormone testing***

Consider using a FSH test to diagnose menopause only in women:

- aged 40 to 45 with menopausal symptoms, including a change in their menstrual cycle
- aged under 40 in whom menopause is suspected.

#### **Background**

- 3.1.1 The FSH test measures the level of FSH in the blood. FSH levels differ depending on a woman's age. In women younger than 45, measurement of FSH levels may be helpful if premature menopause is suspected.

#### **Assumptions made**

- 3.1.2 According to data received from the GDG, during 2014 approximately 12,000 women in Oxfordshire had FSH tests. The population of Oxfordshire is approximately 1% of the population of England. Therefore it is estimated that approximately 1 million women in England have FSH tests each year.
- 3.1.3 Expert clinical opinion suggests currently 70% (approximately 700,000 for the population of England) of women who have FSH tests are aged 45 or older (see table 2).

- 3.1.4 It is also suggested that as a result of the guideline the number of tests for women aged 45 or older will decrease to 15% (approximately 53,000 for the population of England) of the total number of tests (see table 2). It is assumed the number of tests for women under the age of 45 will remain the same (around 300,000).
- 3.1.5 This data is based on 1 study which may not be representative of all areas of the country. Please amend the [costing template](#) accordingly to calculate savings in your local area.

**Table 2 FSH tests for the population of England**

	<b>Current number of tests</b>	<b>Future number of tests</b>
Total number of tests	1,000,000	350,000
Percentage of tests in women aged 45 or older	70%	15%
Number of tests in women aged 45 or older	700,000	53,000

- 3.1.6 Expert clinical opinion suggests the average price of a FSH test is approximately £15.

### **Cost summary**

- 3.1.7 Assuming the average cost of a test is £15, current costs for testing women aged 45 or older is approximately £10.4 million for the population of England. If fewer women who are 45 or older are tested in the future, this may fall to approximately £800,000, saving £9.6 million for the population of England. The net cost impact of FSH testing in women aged 45 or older for the population of England is summarised in table 3.

**Table 3 Estimated net cost saving in FSH testing in women aged 45 or older for the population of England**

	<b>Current cost (£000)</b>	<b>Predicted cost (£000)</b>	<b>Change in cost (£000)</b>
Current cost of FSH tests in women aged 45 or older	10,400	800	-9,600
<b>Net cost/saving (-)</b>			<b>-9,600</b>

### **Other considerations**

3.1.8 The guideline is expected to raise awareness that FSH measurement may only occasionally be useful for the diagnosis of menopause and perimenopause for women who are 45 or older.

### **3.2 Use of transdermal HRT**

A number of the recommendations suggest offering women a choice of either oral or transdermal HRT.

#### **Background**

3.2.1 The Women’s Health Initiative reported that HRT increased the risk of having a cardiovascular event as well as the incidence of breast cancer, although it prevented osteoporotic fractures and colon cancer. The association between HRT and cardiovascular disease has since been disputed and the results are now being interpreted differently.

3.2.2 No other treatment has been shown to be as effective as HRT in controlling menopausal symptoms. The balance of benefits and risks of HRT varies among women but for many the benefits of taking HRT outweigh the risks ([HRT – what’s the latest?](#) Menopause Matters).

#### **Assumptions made**

3.2.3 According to Hope et al’s [Survey of British women’s views on the menopause and HRT](#) 17% of women aged between 40 and 65 are currently using HRT; therefore it is assumed 17% of the prevalent

number of women aged 50 years or older with menopausal symptoms are currently using HRT.

3.2.4 According to the Health and Social Care Information Centre's [Prescription Cost Analysis, England - 2013](#), it is estimated that approximately 85% of HRT currently used is oral and 15% is transdermal.

3.2.5 Expert clinical opinion suggests that after publication of the guideline the number of women using oral HRT will fall from 85 to 80%.

### Cost summary

3.2.6 The health economics in the [full guideline](#) estimates that the annual cost of oral HRT is approximately £30 and transdermal HRT is approximately £100.

3.2.7 The national cost of 5% of women in England changing from oral to transdermal HRT is summarised in table 4 below.

**Table 4 Annual cost impact of HRT for the population of England**

Description	Cost of oral HRT (£000)	Cost of transdermal HRT (£000)	Total cost (£000)
Current annual cost of HRT	6,900	3,800	10,700
Future annual cost of HRT	6,500	5,100	11,600
<b>Total cost impact</b>			<b>900</b>

### Other considerations

3.2.8 One of the aims of this guideline is to help GPs to be more confident in prescribing HRT and women more confident in taking it. Improving this knowledge may be challenging. In the long-term, as a result of the guideline, the number of women using HRT may increase and therefore the associated costs may also increase.

## **4 Sensitivity analysis**

### **4.1 Methodology**

- 4.1.1 There are a number of assumptions in the model for which no empirical evidence exists; these are therefore subject to a degree of uncertainty.
- 4.1.2 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.
- 4.1.3 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 1-way sensitivity analysis, altering each variable independently to identify those that have greatest impact on the calculated total cost.
- 4.1.4 Appendix B contains a table detailing all variables modified, and the key conclusions drawn are discussed below.

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

#### **Variation in the number of women using transdermal HRT**

- 4.2.1 The baseline percentage of women using transdermal HRT is 20%. This results in an overall cost saving of £8.7 million for the population of England. Varying the percentage of women using transdermal HRT from 10 to 30% leads to cost savings of £10.5 million to £7 million for the population of England.

#### **Variation in the number of women using HRT**

- 4.2.2 The baseline percentage of women using HRT is 17%. This results in an overall cost saving of £8.7 million for the population of England. Varying the percentage of women from 15 to 19% leads

to cost savings of £10.1 million to £7.4 million for the population of England.

### **Variation in the number of FSH tests in women aged 45 or older**

4.2.3 The baseline percentage of women aged 45 or older having FSH tests is 15%. This results in an overall cost saving of £8.7 million for the population of England. Varying the percentage from 10 to 20% leads to cost savings of £9 million to £8.5 million for the population of England.

## **5 Impact of guidance for commissioners**

5.1.1 Menopause care does not fall under NHS England's specialised commissioning arrangements.

5.1.2 Currently there is inconsistency of services provided nationally. In England there are 18 NHS specialist menopause clinics. This does not include menopause clinics in primary care or services provided by practitioners with a special interest in menopause but who are not formally commissioned ([Out of the picture – what we found when we tried to map menopause care](#) Menopause UK).

5.1.3 Treatment of menopause is expected to fall into programme budgeting category 17A, genital tract problems.

## **6 Conclusion**

### **6.1 Total national cost for England**

6.1.1 Using the significant resource-impact recommendations shown in table 1 and assumptions specified in section 3 we have estimated the annual impact of implementing these recommendations to be a saving of £8.7 million for the population of England. Table 5 shows the cost breakdown of each significant resource-impact recommendation.

**Table 5 Estimated cost and savings of implementing guidance for the population of England**

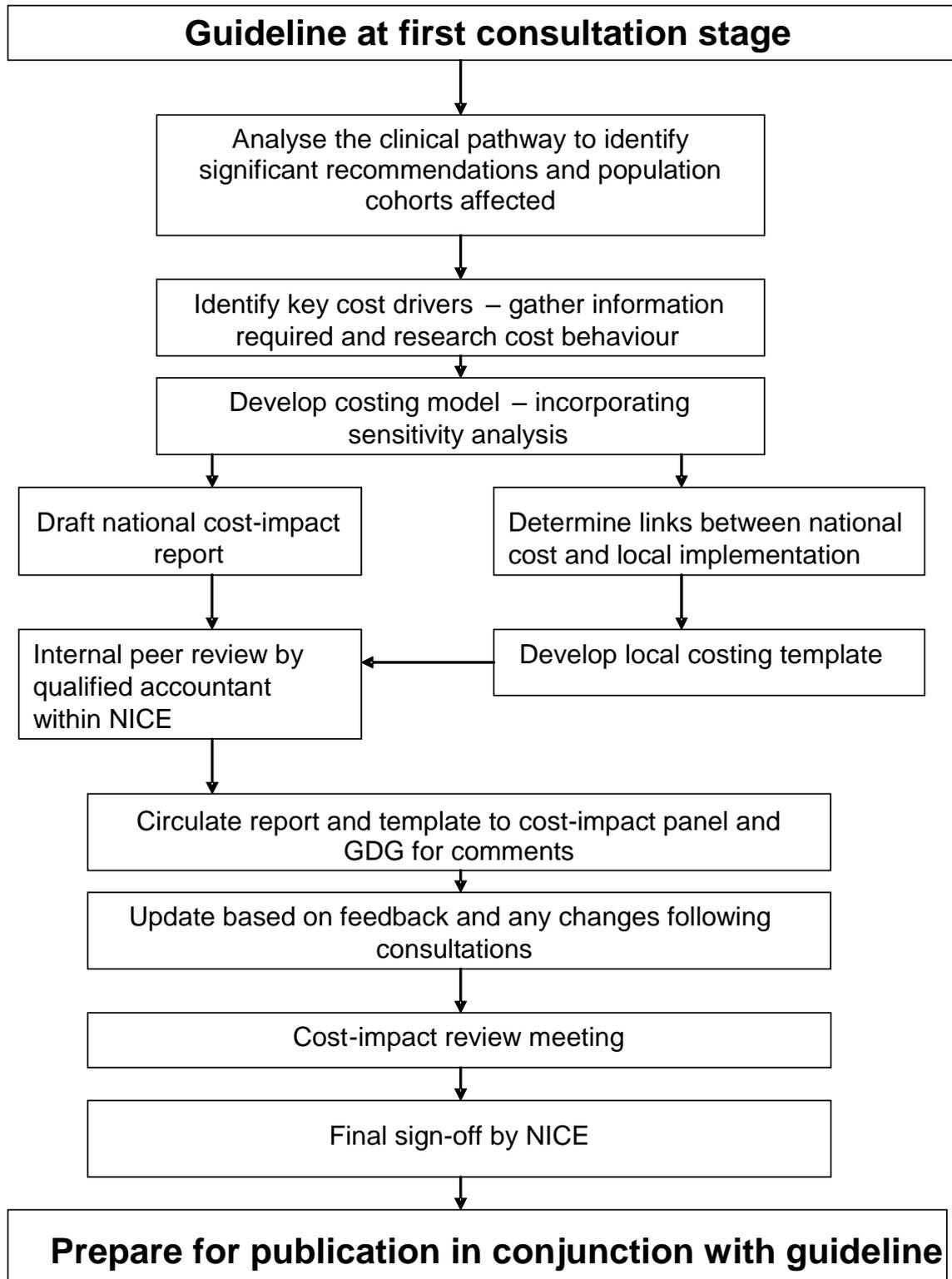
<b>Resource impact area</b>	<b>Annual cost impact (£000)</b>
Decrease the number of FSH tests in women	9,600
Offer women transdermal HRT	(900)
<b>Forecast saving</b>	<b>8,700</b>

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

## **6.2 Next steps**

6.2.1 The local costing template produced to support this guideline enables organisations such as primary care trusts or health boards in 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 a population of 100,000 could expect to save £16,500. Use this template to calculate the cost of implementing this guidance in your area.

## Appendix A. Approach to costing guidelines



## Appendix B. Results of sensitivity analysis

	Individual variable sensitivity			Recurrent costs				
	Baseline value	Minimum value	Maximum value	Baseline costs (£000s)	Minimum costs (£000s)	Maximum costs (£000s)	Change (£000s)	Sensitivity ratio
Prevalence of menopause in women aged 50-54	60%	40%	80%	-8,700	-8,900	-8,500	300	0.04
Number of FSH tests received by women aged 45 or older	15%	10%	20%	-8,700	-9,000	-8,500	500	0.07
Number of women using HRT	17%	15%	19%	-8,700	-10,100	-7,400	2,700	1.00
Number women using transdermal HRT	20%	10%	30%	-8,700	-10,500	-7,000	3,500	0.31