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## **NICE implementation uptake report: Long-acting reversible contraception (LARC)**

NICE implementation uptake reports provide information on national trends and activity associated with recommendations in NICE guidance.

### **Overview**

Prescriptions for implants (Implanon) and IUS in primary care in England continued to increase following the publication of NICE guidance. The estimated average annual cost for implants (Implanon) and IUS was £14.2m and £392,700 respectively. Data show an annual cost of £6.2m for implants (Implanon) and £8.9m for IUS. The upward trend is in line with the anticipated shift to LARC methods. However the increase for implants (Implanon) is lower than anticipated and the increase for IUS is higher than anticipated.

Prescribing for IUD initially remained relatively static following the publication of the NICE guidance in 2005 but there has been a slight increase since 2007. The estimated annual cost for IUD was £1.3m but data shows an annual cost of £491,787.

The numbers of prescriptions for injectable contraceptives (Depo-Provera) are decreasing slowly. The estimated annual cost of injectable contraceptives (Depo-Provera) was £16,901,586 but data shows an annual cost of £5,617,492. The decrease in injectable contraceptives was not anticipated in the NICE guidance which predicted a slight increase in usage. However, the downward trend pre-dates the NICE guidance and may reflect updated advice issued by the Committee on Safety of Medicines (CSM).

# Long-acting reversible contraception (gynaecology, pregnancy and birth)

[‘Long-acting reversible contraception’ NICE clinical guideline 30 \(October 2005\).](#)

## **1 Guidance**

The NICE clinical guideline on long-acting reversible contraception (LARC) offers the best-practice advice for all women of reproductive age who may wish to regulate their fertility by using LARC methods. It covers specific issues for the use of these methods during the menarche and before the menopause, and by particular groups, including women who have HIV, learning disabilities or physical disabilities, or are younger than 16 years.

In November 2004 the Committee on Safety of Medicines (CSM) issued updated prescribing advice relating to bone mineral density and injectable contraceptives. Further information is available from:

<http://www.mhra.gov.uk/home/groups/l-cs-el/documents/committeedocument/con003209.pdf>

## **2 Context**

It is estimated that about 30% of pregnancies are unplanned. The effectiveness of the barrier method and oral contraceptive pills depends on their correct and consistent use. By contrast, the effectiveness of long-acting reversible contraceptive (LARC) methods does not depend on daily concordance. The uptake of LARC is low in Great Britain, at around 8% of women aged 16–49 in 2003–04, compared with 25% for the oral contraceptive pill and 23% for male condoms.

Expert clinical opinion is that LARC methods may have a wider role in contraception and their increased uptake could help to reduce unintended pregnancy. Enabling women to make an informed choice about LARC and addressing women’s preferences is an important objective of this guideline.

LARC is defined in this guideline as contraceptive methods that require administration less than once per cycle or month. Included in the category of LARC are:

- copper intrauterine devices
- progestogen-only intrauterine systems
- progestogen-only injectable contraceptives
- progestogen-only subdermal implants
- combined vaginal rings – these were excluded from this guideline because they did not have UK Marketing Authorisation at the time of publication (NICE Guidance, 2005).

### **3 Recommendations and uptake**

#### **3.1 Recommendations**

1.1.1.1 Women requiring contraception should be given information about and offered a choice of all methods, including long-acting reversible contraception (LARC) methods.

1.1.1.3 Contraceptive service providers should be aware that:

- all currently available LARC methods (intrauterine devices [IUDs], the intrauterine system [IUS], injectable contraceptives and implants) are more cost effective than the combined oral contraceptive pill even at one year of use.
- IUDs, the IUS and implants are more cost effective than the injectable contraceptives.
- increasing the uptake of LARC methods will reduce the numbers of unintended pregnancies.

### **3.2 Estimated levels of uptake**

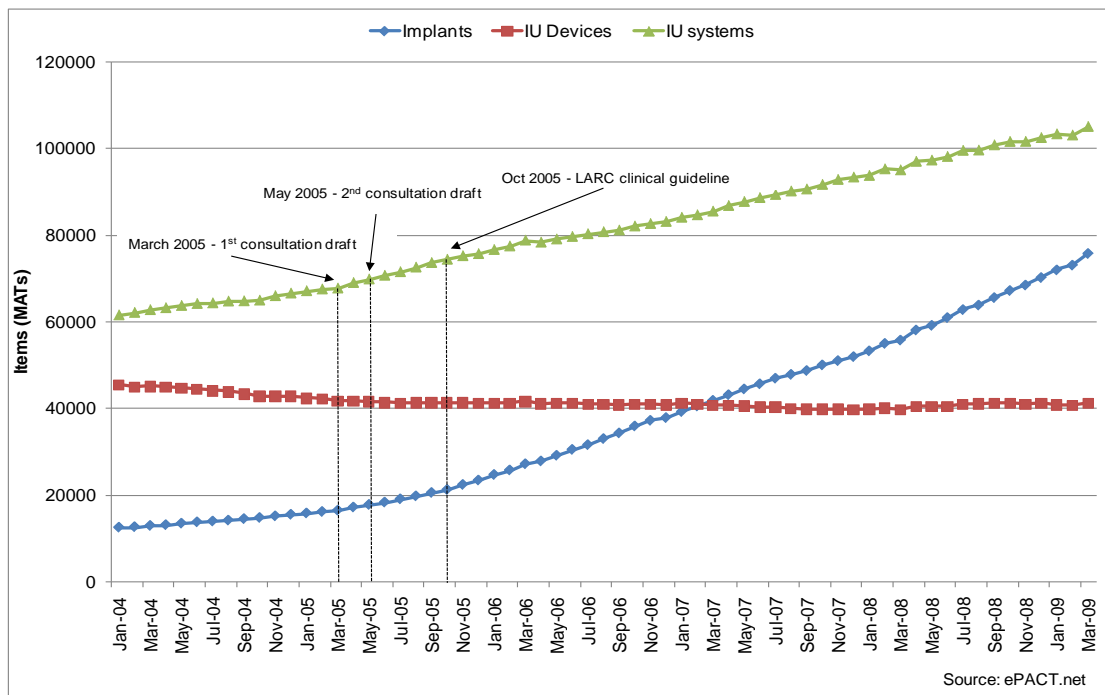
It is assumed that, if given better information and improved access to all methods, more women will chose a LARC method over the oral contraceptive pill. The estimated average annual cost for oral contraceptives will decrease to £30,484,283. The estimated average annual cost for IUDs, implants and injectable contraceptives will increase to £1,256,640, £14,166,517 and £16,901,586 respectively. The estimated average annual cost for IU systems will be £392,700. As with all predictions of future prescribing these estimates are subject to uncertainty.

It is important to note that the NICE cost impact report stated the uptake of LARC methods would not be achieved in the short term. This is due to a shortage of trained staff and fitting services. The uptake of the LARC methods is a phased predication over five years.

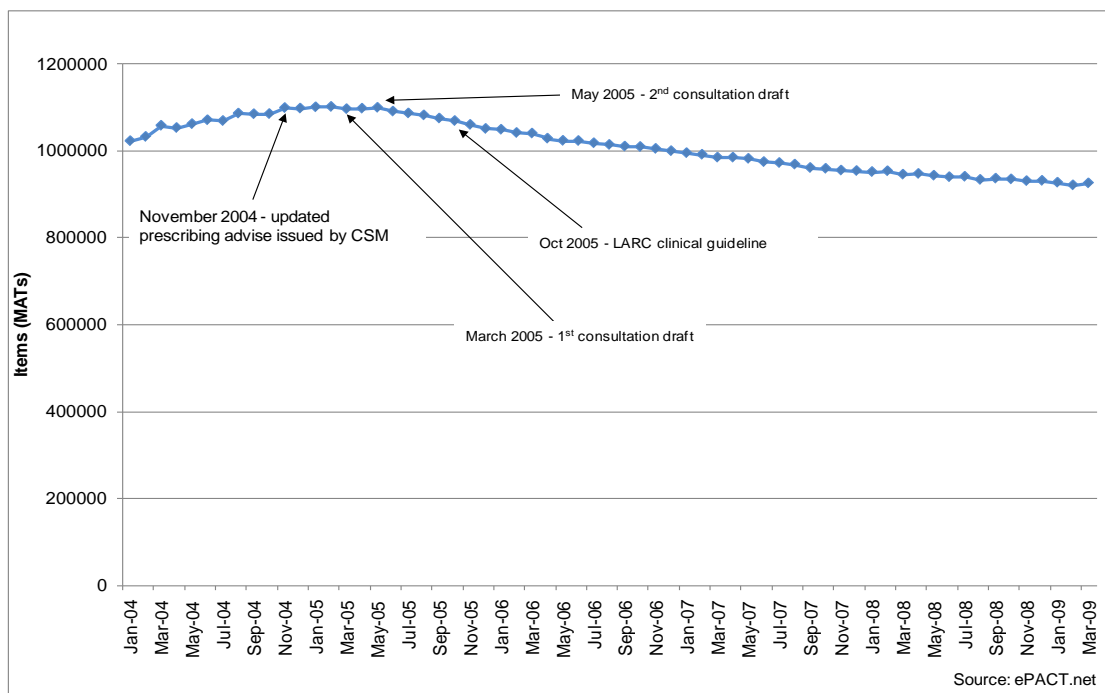
### **3.3 Actual level of uptake: Prescriptions in England (at March 2009)**

This section provides prescribing information for LARC and non-LARC methods using data obtained from the Prescription Services Division of the NHS Business Service Authority. All costs stated in this report are based on net ingredient cost (NIC).

**Figure 1 LARC methods – prescriptions for implants, IUDs and the IUS in primary care in England**



**Figure 2 LARC methods – prescriptions for injectable contraceptives in primary care in England**



Data are presented as Moving Annual Totals (MATs). The Moving Annual Total is the sum of the last 12 months.

Following the publication of NICE guidance in 2005, prescriptions for implants (Implanon) and IU systems (Mirena) continued to increase.

In the 12 months to March 2009, prescriptions for implants (Implanon) increased by 36% in volume, with an increase in cost of 36% for the same 12 month period. Prescriptions for the IU systems (Mirena) increased by 11% in volume and 11% in cost during the study period. The upward trend for both Implants (Implanon) and IU systems (Mirena) is in line with the anticipated shift to LARC methods set out in the NICE national cost impact report.

Prescriptions for IU devices increased by four percent in volume and three percent in cost from the previous 12 month period to March 2009. The cost impact report predicted a small reduction in women using IUDs, however as with all predictions of future prescribing, estimates are subject to uncertainty.

Prescriptions for injectable contraceptives (Depo – Provera) decreased by two per cent in volume and increased by one per cent in cost, for the 12 months to March 2009. In November 2004 the committee on safety of medicines (CSM) issued updated prescribing advice relating to bone mineral density and injectable contraceptives. Prescriptions for injectable contraceptives started to decrease following the publication of the CSM advice (figure two). The NICE guidance predicted a slight increase in the use of injectable contraceptives (Depo – Provera), although the downward trend pre-dates the NICE guidance (figure two).

**Table 1 Contraceptives prescribed and dispensed in primary care in England in the 12 months to March 2009**

British National Formulary Classification		Items		Cost	
		12 months to March 09 (000s)	% change from previous 12 months	12 months to March 09 (£000s)	% change from previous 12 months
<b>LARC methods</b>					
7.3.2.2	Injectable contraceptive (Depo-Provera)	925	-2%	5617	1%
7.3.2.3	IU System (Mirena)	105	11%	8867	11%
7.3.2.2	Implants (Implanon)	76	36%	6150	36%
21.4	IU Devices	41	4%	492	3%
-	<b>Total: LARC methods</b>	<b>1147</b>	<b>1%</b>	<b>21127</b>	<b>14%</b>
<b>Non-LARC methods</b>					
7.3.1	Oral contraceptives - combined hormonal	5,693	-1%	48,003	2%
7.3.1	Oral contraceptives - progestogen-only	1,213	18%	13,147	24%
7.3.1	Emergency hormonal contraception	263	-4%	1701	-7%
7.3.3	Spermicides	9	-7%	78	102%
21.4	Diaphragm	42	-26%	30	-22%
-	<b>Total: Non-LARC methods</b>	<b>7,183</b>	<b>1%</b>	<b>62,959</b>	<b>6%</b>

Prescriptions for the combined hormonal oral contraceptive pill decreased by one percent in volume and increased by two percent in cost in the 12 months to March 2009. During the same period oral contraceptives – progestogen only, increased by 18% in volume and 24% in cost. All other prescriptions relating to non-LARCS methods decreased in volume over the time periods investigated (table one).

National prescribing data used in this section of the report do not link to patient information making it difficult to interpret. The main limitations are:

- There are no data on how many women are using a LARC method at any one time. It is difficult to account for differences in duration of treatment and discontinuation rates.
- LARC methods are also used for non-contraceptive benefits (such as menorrhagia). The prescribed indication is not available from national prescribing data
- There are no data on the age and sex of patients. For instance, it is not possible to track LARC usage for certain age groups using these data, such as female adolescents.
- A large proportion of contraceptive provision is via routes which do not use a prescription e.g. family planning clinics and over the counter emergency contraceptives. National prescribing data will not capture this information.

#### **4 Conclusions**

Prescriptions for implants (Implanon) and IUS in primary care in England continued to increase following the introduction of this guidance. The cost impact report estimated the average annual cost for implants (Implanon) and IUS to be £14,166,517 and £392,700 respectively. The data shows an annual cost of £6,150,201 for implants (Implanon) and £8,867,110 for IUS. The upward trend is in line with the anticipated shift to LARC methods set out in the NICE national cost impact report. However the increase for implants (Implanon) is much lower than anticipated and the increase for IUS is much higher than anticipated.

Prescribing for IUD initially remained relatively static following the publication of the NICE guidance in 2005 but there has been a slight increase since 2007. The cost impact report estimated an annual cost of £1,256,640 for IUSs. The data show an annual cost of £491,787.

The numbers of prescriptions for injectable contraceptives (Depo-Provera) are decreasing slowly (figure 2). The estimated annual cost of injectable contraceptives (Depo-Provera) was £16,901,586. The data shows an annual cost of £5,617,492. The decrease in injectable contraceptives was not anticipated in the NICE guidance which predicted a slight increase in usage. However, the downward trend pre-dates the NICE guidance and may reflect updated advice issued by the Committee on Safety of Medicines (CSM).

The cost impact report estimated the annual cost for oral contraceptives will decrease to £30,484,283; the data show the annual cost at March 2009 to be £61,150,108. This shows practice is not in line with NICE guidance.

## **5 Recommendations**

The uptake of LARC methods is a phased prediction over five years. A decision as to whether this report will be reviewed will be taken in October 2010, which marks five years since the publication of the guidance.

Data show areas of prescribing which are not in line with estimates within the cost impact report and trusts may wish to consider auditing to ensure appropriate practice.

## **6 Further information and references**

### **6.1 Related NICE guidance**

There is no related NICE guidance.

### **6.2 Costing tools**

Costing tools for the guidance are available on the NICE website (<http://guidance.nice.org.uk/CG30/costing>) including a local costing template incorporating a costing report to estimate the savings and costs associated with implementation.

### **6.3 Further references**

Committee on Safety of Medicines (November 2004). Available from:

<http://www.mhra.gov.uk/home/groups/l-cs-el/documents/committeedocument/con003209.pdf>

NICE implementation uptake report: [Long-acting reversible contraception, clinical guideline 30]

## **Appendix**

### ***Definitions used in this report***

#### **Prescribing analysis and cost tool system**

This information comes from the electronic prescribing analysis and cost tool (ePACT) system, which covers prescriptions by GPs and non-medical prescribers in England and dispensed in the community in the UK. The Prescription Services Division of the NHS Business Services Authority maintains the system. PACT data are used widely in the NHS to monitor prescribing at a local and national level. Prescriptions written in hospitals but dispensed in the community (FP10 [HP]) are not included in PACT data. Prescriptions dispensed in hospitals or mental health units, and private prescriptions, are not included in PACT data.

#### **Measures of prescribing**

Volume: The basic measure of volume in PCA and PACT data is the number of prescription items which refer to a single item on a prescription form.

Cost: The net ingredient cost (NIC) is the basic price of a drug listed in the drug tariff, or if not in the drug tariff, the manufacturer's list price.

#### **Data limitations (national prescriptions)**

PCA or PACT data do not link to demographic data or information on patient diagnosis. Therefore the data cannot be used to provide prescribing information by age and sex or prescribing for specific conditions where the same drug is licensed for more than one indication.