



# Assessment of a long-acting Reversible Contraceptive Insertion Training Program OMIT: A Questionnaire Survey

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## **Authors' contributions**

*Both authors designed the study, the questionnaire and utilized the statistical analysis, wrote the protocol, and wrote the first draft and final version of the manuscript. Both authors read and approved the final manuscript.*

**Original Research Article**

**Received 21<sup>st</sup> April 2014**  
**Accepted 23<sup>rd</sup> May 2014**  
**Published 11<sup>th</sup> June 2014**

## **ABSTRACT**

**Introduction:** Before launching an etonogestrel subcutaneous implant on the Australian market, a training programme for health care providers (HCPs) was designed, and endorsed by both the Royal Australian New Zealand College of Obstetricians and Gynaecologists and Family Planning Australia.

**Methodology:** 10,000 HCPs were trained between 2001 and 2003, and these were sent a questionnaire in November 2010. Within the first decade after its launch 633,000 implants were inserted.

**Results:** Twenty-five percent of the questionnaires were returned and collated. Eighty-four percent of respondents were inserting subcutaneous implants, nearly 4% more than ten a month. One hundred and thirteen were not confident in the insertion technique- the "training failures", yet most of these said that the training gave them the "skills to insert" and "confidence to insert". As a group these HCPs were older, and there seemed to be a significant interval between undertaking training and starting to insert implants.

**Conclusions:** To minimise "training failures" MSD now offers representatives to attend at surgeries with a placebo arm and implants to enable a "refresher" training if the HCP requests.

**Funding:** The cost of printing and posting of the questionnaires, as well as collating the responses were funded by MSD.

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*Keywords: Progestogen implants; training; assessment; skills.*

## 1. INTRODUCTION

There are now many contraceptive choices available for couples. These methods have varying degrees of efficacy due to the combination of method and user failures. Long acting reversible contraceptives (LARCs) (injectables, intrauterine devices and implants) do not require daily action by users, and consequently after satisfactory insertion, user failure is zero. As all the LARCs are highly effective, with few method failures, they are a very efficient method of contraception with a very low rate of unplanned pregnancies. One of the more recently developed LARCs is a subdermal, implantable contraceptive containing 68mg of the progestogen etonogestrel (Implanonon ®) which is effective for up to 3 years. A feature of implants is that they need to be inserted and removed by an experienced clinician. Prior to the launch of Implanon on the Australian market in 2001, Organon (now MSD) was aware of difficulties with the insertion and removal of the previous progestogen only implant, a six rod system, previously available overseas (Norplant®). To avoid a replication of similar problems, it was decided to put in place a training program dealing with insertion and removal, before doctors commenced inserting and removing these devices.

The training program involved a theoretical component, including an instructional video, followed by a practical component where participants were able to practise insertions and removal on a model arm. After successfully completing the training, doctors were issued with a certificate endorsed by Family Planning Australia and the Royal Australian and New Zealand College of Obstetricians and Gynaecologists (RANZCOG) (Fig. 1).



**Fig. 1. The certificate issued after training**

This survey was carried out to assess how valuable doctors felt the training course was, and also to see what proportion continued to insert implants over time.

## 2. MATERIALS AND METHODS

Ten thousand medical practitioners who had undertaken Implanon training between 2001 and 2003, obtained from records maintained by MSD, were surveyed by postal questionnaire. The questionnaire was designed by the authors in order to inform the development of similar training programs for the next generation of implants. After the questionnaire was designed, it was tested as a pilot study on a group of twenty GPs. A copy of the questionnaire is shown in (Fig. 2). The questionnaires were sent in November 2010 to the clinician's address at the time of completing the training, and a response by mail was requested. Return paid envelopes were provided but there was no incentive for completing the questionnaire.

NA  
 1-4  
 5-10  
 >10

**C. Your Resources Needs**

4.0 Are you aware of an interventional radiology centre in your area that can remove implants that are non-implant?  
 Yes  
 No

4.1 What do you find most challenging when managing patients' contraceptive needs?  
 \_\_\_\_\_

4.2 Which of the following resources do you feel would help you better respond to patients' contraceptive needs e.g. educational resources, patient information resources?  
 \_\_\_\_\_

*This study is an initiative of and is being conducted by Professor Grah Kinnear of Maastricht University and Associate Professor Steve Trumble of the University of Melbourne with sponsorship from MSD.*

*If you complete and submit this questionnaire, Professor Grah Kinnear and Associate Professor Steve Trumble may use your responses to compile aggregated results for publication.*

*MSD will only use your Personal Information as outlined in the Privacy Statement below.*

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**A. Doctor & Practice Profile**

3.1 Are you a  GP  Specialist

3.2 What is the size of the practice you are working at the majority of your time?  
 Solo Practice  
 2 - 5 Doctors  
 6 - 9 Doctors  
 10+ Doctors

3.3 On average, how many hours per week do you spend consulting with patients?  
 <5  20-29  
 5-9  30-39  
 10-14  40-49  
 15-19  50+

3.4 Are you  Male  Female

3.4. What is your age?  
 Under 30  
 31-40  
 41-50  
 51-60  
 Over 60

3.5 Years since graduating with primary medical degree  
 < 10 years  
 11 - 20 years  
 21 - 30 years  
 > 30 years

1.6 How many Pap Tests do you (or a nurse acting on your behalf) do on average per month?  
 Nil  
 1-5  
 6-10  
 >10

**B. Your Implanon Experience**

2.1 When did you complete training on Implanon?  
 Within the last year  
 2-5 years ago  
 6 years + ago  
 Sorry, I can't remember

2.2 Upon completion of the training, how would you rate your confidence of the time with regards to:  

	1 Very confident	2	3	4	5 Not at all confident
Counselling prospective patients	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Implane insertion	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Managing vaginal bleeding	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Implane removal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2.3 The training program increased my knowledge about implantable contraceptives  

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2.4 The training program gave me the skills I needed to **insert** Implanon  

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2.5 The training program gave me the skills I needed to **remove** Implanon  

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2.6 The training program made me confident to start inserting Implanon  

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3.0 Do you have any suggestions on how to improve the Implanon Training Program?  
 \_\_\_\_\_

3.1 Are you currently inserting Implanon?  
 Yes (go to question 3.3)  No (go to question 3.2)

3.2 You indicated you are currently **not** inserting Implanon. What best describes your motivation for not using it? Please select all options that are relevant.  
 I don't have the facilities  My systems have not requested it  
 I don't have the time  I don't feel confident  
 Patients have reported unsatisfactory experiences  There is no financial incentive  
 I believe I need procedural insurance  I don't consider Implanon to be a good alternative  
 Other (Please Specify): \_\_\_\_\_

Please go to Question 4.0

NA  
 1-4  
 5-10  
 >10

Fig. 2. The questionnaire

The doctors were asked to return their questionnaires as soon as possible, and data collection was closed at the end of the year, when analysis was undertaken. No further responses were considered after the closing date.

The data was collated by The Black Group (a "Response Management Agency") and was analysed using Statistical Package for Social Sciences (SPSS version 15).

The cost of printing and posting of the questionnaires, as well as collating the responses were funded by MSD.

### 3. RESULTS

Of the 10 000 questionnaires sent out, 2516 were completed, returned and collated (25.1%). Whilst we feel that the response rate was very good, it is possible that some questionnaires did not reach the addressee, as doctors change practices, others may not have felt interested in the method any more and therefore felt the survey was not relevant, and others maybe just could not be bothered.

#### 3.1 Demographics

Ninety-four percent of respondents were general practitioners, fifty-one percent were male, 47% were female, and 2% did not specify. The age of the responding practitioner, (Table 1) number of years since graduation (Table 2) and time since implant training (Table 3) are shown in the tables.

**Table 1. Age of respondents (number and percentage)**

<b>Under 30</b>	<b>32</b>	<b>1%</b>
31-40	345	12%
41-50	949	34%
51-60	1,014	36%
Over 60	418	15%
Not specified	22	1%
Total	2780	100%

**Table 2. Number of years since graduation for respondents (percentage)**

<b>&lt;10 years</b>	<b>164</b>	<b>6%</b>
11-20 years	675	24%
20-30 years	1,048	38%
>30 years	882	32%
Not specified	11	0%
Total	2780	100%

To assess how active the practitioners were in the area of women's health in their practices, they were asked how many "Pap tests" they performed each month. Nearly half (49%) performed more than 10 per month, 23% between six and ten, 24% between one and five, and 2% nil.

**Table 3. Number of years since Implanon® training (percentage)**

<b>Within the last year</b>	<b>249</b>	<b>9%</b>
2-5 years ago	788	28%
6 years+ago	1,476	53%
Sorry, I can't remember	243	9%
Never	4	0%
Not specified	20	1%
Total	2780	100%

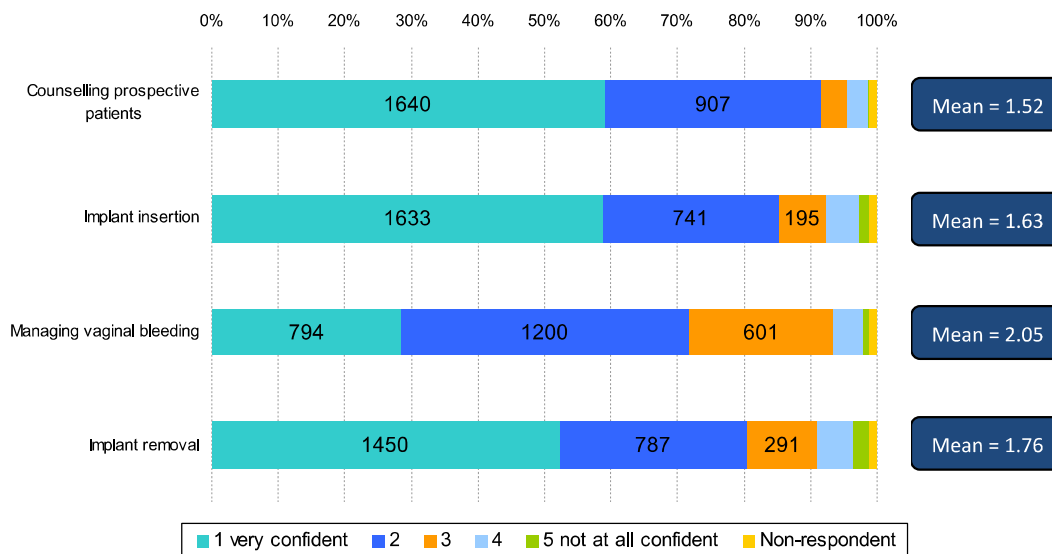
### 3.2 Value of Training Program

The respondents were asked how valuable the training program was in enabling them to deal with the following four areas:

- Confidence to counsel patients about long term implants,
- Skills to insert the implant, and
- Skills to remove the implant, and
- The ability to manage vaginal bleeding.

The results of answers to these four questions are shown in (Fig. 3).

Furthermore, the respondents were asked to record on an analogue scale of 1 to 5 their “confidence to insert” and “skills needed to insert” after the training course (Fig. 4) The respondents’ confidence for removal skills is summarised in (Fig. 5).



2.2: Upon completion of the training, how would you rank your confidence at the time with regards to: counselling prospective patients, implant insertion, managing vaginal bleeding, implant removal?

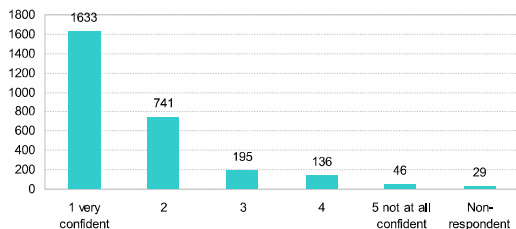
**Fig. 3. The value of “Implanon” training in managing clinical situations in practice**

## Confidence and skills for Implanon insertion after training

### Confidence to insert

Mean = 1.63

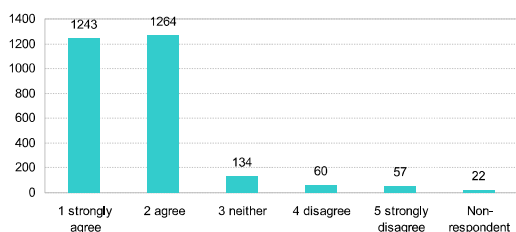
\*both not including non-respondents



Question: Upon completion of the training, how would you rank your confidence at the time with regards to implant insertion?

### Gave skills needed to insert

Mean = 1.70



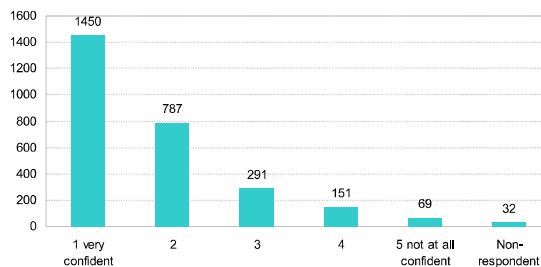
Question: The training program gave me the skills I needed to insert Implanon.

**Fig. 4. Confidence and skills for insertion after training**

### Confidence to remove

Mean = 1.76

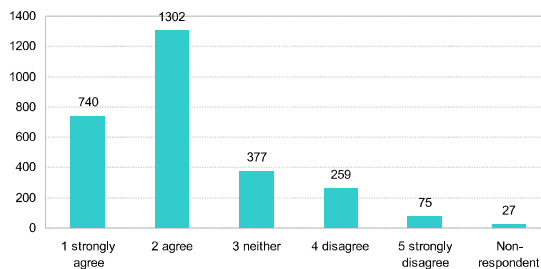
\*both not including non-respondents



Question: Upon completion of the training, how would you rank your confidence at the time with regards to implant removal?

### Gave skills needed to remove

Mean = 2.13



Question: The training program gave me the skills I needed to remove Implanon.

**Fig. 5. Confidence and skills for removal**

### **3.3 Ongoing Experience with Implanon®**

Eighty-four percent (2133) of the respondents were inserting etonorgestrel implants at the time of completing the survey, whereas 15% were not. Of those inserting, 3.6% were inserting more than 10 per month, 88.5% were inserting 5-10 per month, 6.9% were inserting between 1-4 per month and 1.0% were inserting less than 1 per month. Of those the 427 who undertook training but were not inserting implants, 117(27%) found that their patients did not request it, 113(26%) did not insert because they were not confident, 100(23%) did not have enough time, or see sufficient financial incentive, to insert implants. The other 24% had a combination of the following reasons: patients reporting unsatisfactory experiences; disbelief that they needed specific insurance; not considering the implant a good option; not having enough patients to maintain skill level and confidence (especially right after completion of training); and referring to other doctor(s) in the same practice “who does them all”.

Finally respondents were asked what they found most challenging when managing patients' contraceptive needs. The answers included: the time it took to discuss contraceptive options, the misconceptions patients have, the unrealistic expectations of contraception that women were perceived to have, and managing side effects.

## **4. DISCUSSION**

The use of etonorgestrel as a LARC has been widely accepted by Australian women with over 633 000 implants sold in the first decade post launch. More than 10,000 practitioners undertook the training course, and this was partly due to medical defence organisations recommending that their members to attend training prior to inserting, in order to ensure insurance coverage.

The response to the questionnaire was excellent for a postal questionnaire with more than 25% of those surveyed responding. Female respondents were slightly over-represented relative to their prevalence in the general practice workforce (47% of female respondents compared to 40.5% of Australian GPs being women [1]) which relates to female GPs undertaking contraceptive consulting 70% more frequently than their male colleagues [2]. The survey also highlights the ageing general practitioner workforce, with 51% of our respondents being 51 years or over (similar to the national average age of 50.5 years for GPs [3]. The respondents represented practitioners with an interest in women's health as 72% of the respondents carried out 6 or more pap tests per month. More than 80 percent were confident or very confident with insertion and removal, although-while they still felt the training gave them the skills necessary for removal-they found this more daunting than insertion.

Eighty-four percent of the respondents were still active etonorgestrel prescribers although 3.6% inserted less than 1 per month. Of the 15% who were no longer inserting Implanon, 100 (23%) did not have sufficient time or see sufficient financial incentive.

One hundred and thirteen doctors (26%) were no longer inserting because they felt they were not confident, despite having attending training. We looked at this group in more detail as they represent “training failures”. One of the findings is that this group was the older generation; (only five of the “not confident” respondents being under 40 years of age, 44 (38%)) being in their forties, and 44 (39%) in their fifties. This is no surprise, as the older we

get the harder it is to learn new procedures/techniques [4-6]. Being older is one possible explanation why this group may have not found the learning of a new technique easy. What is surprising is that when asked the question "Training program gave me the skills to insert IMPLANON" only five of these doctors disagreed, whilst 22 strongly agreed and 78 agreed (the other 5 neither agreed or disagreed). When asked "Training program made me confident to start inserting IMPLANON" 67 of these respondents "strongly agreed/agreed". Why these doctors (more than half) felt confident when they finished their training, but then lost confidence is interesting. When we look at the interval between training and the time of the questionnaire, only four respondents did the course within the year, 17 between 2 and 5 years ago, and 30 more than 6 years beforehand. Eleven could not remember when they did the training. As the time between training and putting into practice may have been delayed, MSD now offers representatives to attend at surgeries with a placebo arm and implants to enable a "refresher" training. On gender distribution 13 were male and 47 female (two not stated). Only two of these doctors were under 30 years of age, and 34 over 50. Only 13 of this group doctors worked full time (=>40 hours per week).

Among the most common responses given by respondents as to what they find challenging in the management of patients' contraceptive needs, were "time" and "remuneration".

The results indicate that GPs need to be active in the insertion of subcutaneous implants soon after training in order to maintain their confidence in the procedure.

## **5. CONCLUSION**

Twenty-five percent of 10,000 trained practitioners returned the survey. Ninety percent of respondents were confident in counseling patients, and over 80% were confident to undertake insertion and removal. It appears that a delay in time from undertaking training to the time that insertions were undertaken was the most significant factor. To remedy this, MSD now arranges for representatives to attend surgeries with placebo implants and practice arms to provide refresher sessions.

## **CONSENT**

Not applicable.

## **ETHICAL APPROVAL**

Not applicable.

## **COMPETING INTERESTS**

Authors have declared that no competing interests exist.

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