Subdermal implants: a recent addition to the choice of South African contraceptives

Adams B, MScNursing, RN, RM, Nurse Educator
Private Nurse Practitioner, Quinhealth
Reproductive Health Education Co-ordinator, Comficor Professional Development

Introduction

Implanon® NXT is a subdermal hormonal contraceptive implant licensed for use in South Africa. It is a long-acting contraceptive, effective for three years, with more than 99% efficacy in a population of users. It has a rapid onset of effectiveness and is quickly reversible. It offers safe and convenient contraception with higher use effectiveness than most other reversible contraceptive methods. Implanon® NXT is useful in women who require long-term contraceptive effectiveness without the finality of sterilisation. Age restrictions are not applicable. It can be used by women from menarche to menopause.

The following three short case studies outline various aspects of Implanon® NXT as a choice of contraceptive, including the importance of counselling prior to insertion of the implant, and the management of problems associated with the implant.

Case study 1

Ms X was a 19-year-old full-time student who presented at the clinic to obtain a contraceptive, and requested Implanon® NXT.

Ms X and the nurse practitioner discussed various methods of contraception. The patient required long-acting contraception without the need to visit the clinic every few months. This excluded oral and injectable contraceptives. She also indicated that she did not want to use an intrauterine device as her menses were somewhat heavy and she experienced dysmenorrhoea.

A comprehensive medical, gynaecological and obstetric history was taken, as well as her blood pressure and weight measurements. A human immunodeficiency virus test, tuberculosis screening and urine pregnancy test were performed to ensure that there were no contraindications, and that Implanon® NXT was the most suitable method for her needs.

According to the World Health Organization (WHO) level 4 guidelines (“do not use”), exclusion criteria for the use of Implanon® NXT include:

- A known or suspected pregnancy
- Undiagnosed vaginal bleeding
- Current hepatic disease or jaundice
- Current breast cancer or progesterone-dependent cancer
- Porphyria
- A current history of thrombosis (deep vein thrombosis or pulmonary embolism)
- A history of allergy to local anaesthetics.

According to the WHO level 3 guidelines, Implanon® NXT should be “used with caution” in the following circumstances:

- Uncontrolled diabetes mellitus
- Severe arterial disease, ischaemic heart disease and uncontrolled hypertension.

Some medications interact with Implanon® NXT by decreasing the contraceptive efficacy of the implant, i.e. enzyme-inducing drugs, such as rifampicin for tuberculosis; phenytoin for epilepsy; and certain antiretroviral drugs, including ritonavir and nevirapine.

Ms X had no contraindications to the use of Implanon® NXT. However, she had not been using any hormonal contraception, had a sexual partner, did not use condoms regularly, and was in the middle of her cycle. Based on the fact that it was not possible to rule out pregnancy, Ms X was asked to return to have the Implanon® NXT inserted when she had her menses.
**Case study 2**

Ms Y was a 42-year-old woman, currently on Petogen® for contraception. She was not considering sterilisation, but was certain that she did not want any more children. She wanted information on Implanon® NXT to help her to decide if she should have one inserted.

After a discussion of the various contraceptive methods and history taking, it was ascertained that Ms Y was eligible for Implanon® NXT as a contraceptive method. The nurse practitioner identified Ms Y’s specific needs and possible concerns.

During consultations, most women want to know the following about Implanon® NXT:

- **What is an implant?** Show them a sample. Explain that it contains hormones to prevent pregnancy
- **Where is it placed?** It is placed in the non-dominant upper arm, between the triceps and the biceps, avoiding the neuromuscular groove
- **How effective is Implanon® NXT?** It is more than 99% effective, but no method is 100% so.
- **For how long is it effective?** It is effective for up to three years, and can be removed earlier, if necessary
- **How is it inserted?** It is inserted under local anaesthetic in the clinic by a trained healthcare practitioner
- **When does fertility return?** Fertility returns immediately on removal of the implant. Implanon® NXT is a better choice of contraceptive than long-term injectable contraceptives as it has no effect on bone mineral density loss in perimenopausal women.
- **Are there changes to the menstrual cycle?** Changes may result in "menstrual chaos". In general, the following applies: 1 in 3 women have normal menses 1 in 4 infrequent menses, 1 in 5 amenorrhea, and 1 in 6 nuisance bleeding. However, this can be managed with breakthrough bleeding treatment. Bleeding patterns experienced during the first three months are broadly predictive of future menses in most women
- **The necessity of follow-up visits:** Follow-up visits are not necessary unless patients have concerns. They should return in three years for removal or replacement of the implant.

In this case study, the implant was inserted during the first visit. There were no contraindications. After insertion, the Implanon® NXT was palpated by the nurse and the client to ensure that it was felt subdermally. A waterproof dressing was used to close the insertion site and covered with a crepe bandage to help to prevent swelling in the area.

Post-insertion advice was to keep the dressing dry for five days, and to avoid lifting heavy weights for a week using the insertion arm. The patient was given an Implanon® NXT card for her records, with the batch number and expiry date of the product, and invited to return to the clinic if she had any further questions or concerns.

**Case study 3**

Ms Z was a 32-year-old woman who presented at the clinic because she was unhappy with the perceived side-effects of Implanon® NXT, inserted 10 months previously, and wanted to have the implant removed.

Her description of the side-effects that worried her included:

- Irregular menstrual bleeding
- Back ache
- High blood pressure (unmeasured, and therefore unsubstantiated)
- Weight gain.

A history, as well as blood pressure and weight measurements, were taken, and compared with the data obtained on insertion. Significant changes were not noted, apart from a 3 kg weight increase. The patient’s concerns regarding the side-effects were noted and discussed.

The nurse practitioner explained that Implanon® NXT affects the endometrium, resulting in a decrease in periods. The provision of information, counselling and the use of a bleeding diary could improve her acceptance of an abnormal bleeding pattern. Women who have cultural or religious taboos regarding menstrual irregularities should be particularly well advised. Clients who convert from an injectable contraceptive, which results in amenorrhea, should also be advised that bleeding may occur and must be counselled to ensure that this is acceptable. Bleeding will occur and must be counselled to ensure that this is acceptable.

The patient attributed her back ache to “blood in her back” from the decreased menses. Following a discussion of her lifestyle and work, the nurse learnt that Ms Z was employed as a packer in a factory. This is a physically demanding job and was probably the cause of her lower back ache. Education was given regarding the safe lifting of heavy objects, as well as exercises.

Ms Z’s blood pressure, when measured, was within normal limits. Blood levels with the use of Implanon® NXT remain steady, rather than fluctuate, and it has no effect on blood pressure. However, she was invited to check her blood pressure at the clinic when she felt it necessary, or with the occupational health nurse at the factory.
The patient’s weight had increased by 3 kg from the time of insertion of the Implanon® NXT. She admitted that her intake of sugary drinks and fast foods had increased since her employment at the factory. She was advised to take note of her food consumption, possibly with the use of a food intake diary. Implanon® NXT may have a mildly androgenic effect, which might increase the appetite, and cause possible vaginal dryness, decreased libido or increased sebum.

There are less androgenic side-effects with the inclusion of etonogestrel in Implanon® NXT, as opposed to levonorgestrel or depomedroxyprogesterone acetate.

**Conclusion**

Implanon® NXT is a generally well-tolerated addition to the choice of long-acting contraceptives. Adequate history taking regarding eligibility for the method, and pre- and post-insertion counselling aid in high continuation rates because side-effects are usually the reason why women discontinue using the product if they have not been adequately counselled.

**Bibliography**