Progestogen-only Implants

What's New

The current guidance from the manufacturer regarding the insertion site to reduce the risk of neurovascular damage remains unchanged.

- The person should lie on her back, non-dominant arm abducted to 90°, elbow flexed and hand behind their head.
- starting at the medial epicondyle, measure 8-10cm proximally along the sulcal line (the groove between brachialis/biceps anteriorly and triceps posteriorly). From this point, measure 3-5cm posteriorly, perpendicular to the sulcal line to identify the point over triceps at which the insertion device will pierce the skin .
- from the insertion site, the inserter is advanced proximally, parallel to the sulcal line.

FSRH guidance suggests the effectiveness of etonogestrel implant could be reduced during use of lamotrigine. Advise and document reliable use of condoms in addition if method preferred.

This guideline will refer to the term 'woman', 'she' or 'herself' in accordance with the Women's Health Plan Scotland, and will encompass all those who require access to women's health and/or reproductive services.

Background

The contraceptive implant Nexplanon® is a flexible rod containing 68mg of etonogestrel in a plastic, ethylene vinylacetate copolymer matrix. Nexplanon® contains 15mg of barium sulphate (3%) dispersed throughout the implant, rendering it radio-opaque. The implant is usually inserted into the non-dominant upper arm and should be removed or replaced after three years or sooner if indicated or requested.

Mode of action

1 Inhibit ovulation
2 Alter cervical mucus
3 Inhibits normal endometrial development

Efficacy

Extremely low failure rate.
Some pregnancies have occurred when the client was already pregnant prior to insertion of the implant or has not observed appropriate contraceptive cover after initial fitting. Current experience suggests a method failure rate of around $\leq$ 1 in 10000 over 3 years of use.

Medical Eligibility

The implant is suitable from menarche to age 55 years.

There are very few medical contraindications for use of the implant, please check UKMEC: https://www.fsrh.org/standards-and-guidance/documents/ukmec-2016-digital-version/

Side Effects

- Unpredictable bleeding pattern which can change at any time during use. Irregular vaginal bleeding in the first few months has a ~50% chance of improving.
- Breast pain or tenderness
- Acne
- Discomfort over insertion site
- Alopecia/hirsutism has rarely been reported
- No causal association has been found with the following side effects:
  - Headache
  - Weight changes
  - Abdominal pain
  - Changes in libido
  - Mood changes
- Possible association between current or recent use of hormonal contraception (including progestogen-only implants) and a small increase in risk of breast cancer, although absolute risk remains very small.

Drug Interaction

Please refer to FSRH Clinical Guidance Drug Interactions with Hormonal Contraception / BNF / Stockley's

- Liver enzyme inducing drugs (eg: Carbamazepine, Rifampicin, Rifabutin, St John's Wort) may decrease contraceptive efficacy during use and for 28 days after stopping the enzyme inducer.
- Ulipristal Acetate. Individuals should be advised to wait 5 days after taking UPA-EC before insertion of the implant as its ability to delay ovulation may otherwise be reduced. UPA-EC efficacy could theoretically be reduced if an implant is in situ (even if >3 years). Also, theoretical interaction if UPA taken for management of fibroids.
- Immunosuppressants (eg: Ciclosporin) levels may be increased.
- Antiretrovirals: Always use the HIV drug interaction checker (www.hiv-druginteractions.org).
- Broad spectrum antibiotics **do not** affect contraceptive implants.
- The effectiveness of etonogestrel implant could be reduced during use of lamotrigine. Advise and document reliable use of condoms in addition if method preferred.

Assessment prior to insertion

- Contraceptive efficacy and failure rate discussed.
- Duration of use
- Interactions with medicines/herbal remedies
- Potential bleeding patterns
- Other potential side effects
- Insertion Procedure fully explained (including risks of local reaction, deep insertion, intravascular insertion and neurovascular damage). and demonstration implant shown.
- STI – risk assessment and documentation if client declines either or both of NAAT or BBV serology

Decision to proceed taken by client and clinician.

Insertion should be arranged at an Implant list or can be offered at other services if clinically appropriate.

FSRH CEU has produced guidance on implant insertion for those on antiplatelets or anticoagulation. See references.

Nexplanon® is safe and licensed to for use in breast feeding mothers.

Documentation

- The visit history should be completed or updated as required,
- Written method information including contact number is given to client.
- Prescription should be completed on NaSH.
- Site of implant, batch number and expiry date of medication recorded.
- Confirm and document that the implant has been palpated, by both client and inserter. If the client does not wish to palpate, this should be documented.
- Record of implant site and date due for removal given to client.
- A standard letter will automatically be generated by Sandyford IT dept and sent to the client's GP informing them of the procedure, provided GP permission is given on NaSH.

Timing of insertion of contraceptive implant

Situation	Implant inserted	Days of additional contraception
Menstrual cycle	Day 1-5 Day 6+ (consider pregnancy risk)	0 7
Amenorrhoea	At any time if it is reasonably certain they is not pregnant	7
Post partum (any delivery >24 weeks)	≤ Day 21 >Day 21	0 7
Post-abortion, miscarriage, ectopic or surgical evacuation for gestational trophoblastic disease	≤ Day 5 >Day 5 *consider pregnancy risk	0 7
Switching from CHC	Immediately after the last day of active hormone use (i.e. Day 1 of the hormone-free interval) Week 1 following the hormone-free interval Week 2–3 of pill/ring/patch	0 7 If UPSI has occurred after Day 3 of the hormone-free interval advise restarting the CHC method for at least 7 days 0 Providing the CHC method has been used consistently and correctly for 7 consecutive days before switching

Switching from an injectable	Any time within 14 weeks of last injection 14 weeks + 1 day or more since last injection	0 7 EC would be required if UPSI occurred any time after 14 weeks
Switching from a POP or LNG-IUS	Any time	7 or continue to use the existing method for a further 7 days (0 for desogestel POP)
Switching from a non-hormonal method	Days 1–5 of cycle Outside Days 1–5 or if amenorrhoeic	0 7 Cu-IUD should be retained for 7 days if UPSI occurred in the 7 days before implant insertion

Quick starting after emergency contraception

Levonorgestrel emergency contraception (LNG-EC)

- Nexplanon® can be inserted immediately
- Condoms must be used for an additional 7 days
- Document off license prescription
- Require pregnancy test 3 weeks following last UPSI.

Ulipristal Acetate (UPA-EC)

- Wait for at least 5 days following EC before inserting Nexplanon®.
- Advise condoms for a further 7 days (12 days of condom use in total).
- Document off-license prescription.
- Require pregnancy test 3 weeks following last UPSI.

<u>Timing Of Removal</u>

Implants cause anovulation. Contraceptive cover is present until the device is removed, irrespective of when last sexual intercourse occurred. Any sexual intercourse after removal must be covered by an alternative method of contraception if pregnancy is to be avoided.

If an implant is removed and another implant reinserted, there is no need for additional contraceptive precautions, as long as the original implant was within licence.

If implant out of date (in situ >3 years) do pregnancy test and replace and immediately re-insert if negative. Advise condoms for 7 days and repeat pregnancy test after 3 weeks if UPSI <21 days ago.

Fitting and removal techniques as per training for LoC SDI.
- Skin should be cleaned with 0.5% Chlorhexidine or suitable alternative
- Palpate arm after insertion and check implant loading device to ensure implant has been inserted.

Dosage Recommendations for 1% lidocaine:
Recommended dosage for insertion of sub dermal implant is 1.5ml–3ml.
Recommended dosage for removal and insertion of sub dermal implant is 1.5-3ml
Recommended dosage for removal of sub dermal implant is between 0.5ml to 2ml.

Amount must be adequate to provide anaesthesia for procedure. If the person experiences pain during the procedure further doses of lidocaine may be given up to the recommended maximum of 5ml.

Post- Insertion Instructions

Advised to use additional contraception for seven days if necessary +/- pregnancy test.
Wound care instructions given at time of insertion (via pre-printed leaflet or SMS).
Advised to take simple analgesia if required.
Advise how to feel for implant
Routine post-insertion follow up is not necessary.

Deep or Impalpable Implant

Implant removal should only be attempted if the implant is palpable and pops up when pushed at the other end.

If the implant is deep or impalpable, or if you are not confident that you can safely remove the implant, the client should be referred on NaSH via internal Referral to Med Gyn and will be appointed to SC SRH Deep Implant.

Should the client require ongoing contraception whilst awaiting removal of a deep implant, please commence this at the time of referral. If the chosen

method is a further implant, it should be inserted in the opposite arm (unless there is concern the original implant is in an ectopic location)

Linear array ultrasound is the imaging technique of choice for locating contraceptive implants. The Deep Implant Clinic will arrange an x-ray +/- etonogestrel assay if the implant is not visible on ultrasound scan.

Clients with other implants

Implanon® is no longer manufactured in the UK, although some clients may still have an expired Implanon® in situ. The removal technique is identical to Nexplanon® and staff who are trained to remove Nexplanon® can remove Implanon®.

Occasionally clients may present with different implants which have been inserted overseas. These may be Norplant® (6 capsules, 5 years use) or Jadelle® or Norplant II® (2 capsules, 5 years use). Members of staff who have been trained to fit and remove single rod devices should not attempt to remove these devices, but should refer the client to the Deep Implant Clinic

References

FSRH Clinical Guideline: Progestogen-only Implant (February 2021, Amended July 2023) - Faculty of Sexual and Reproductive Healthcare
[accessed March 2025]

HIV Drug Interactions: www.hiv-druginteractions.org [Accessed March 2025]

UK Medical Eligibility Criteria for Contraceptive Use (UKMEC) - Faculty of Sexual and Reproductive Healthcare (fsrh.org) April 2016, amended 2019 [access March 2025]

FSRH CEU Statement: Management of women taking anticoagulants or antiplatelet medications who request intrauterine contraception or subdermal implants (March 2017) - Faculty of Sexual and Reproductive Healthcare
[access March 2025]

FSRH CEU Clinical statement Jan 2020 - Nexplanon Insertion Site. Available from: https://www.fsrh.org/standards-and-guidance/documents/fsrh-ceu-statement-on-nexplanon-insertion-site-15-january-2020/ [access March 2025]

FSRH CEU Guidance: Drug Interactions with Hormonal Contraception (May 2022) - Faculty of Sexual and Reproductive Healthcare [access March 2025]

Appendix for Sandyford Staff

Sandyford Local Protocol for Ethyl Chloride Spray (Cryogesic®) for insertion of Nexplanon® implant

Ethyl Chloride Spray has no anaesthetic properties but works as a vapo-coolant/skin refrigerant. Its analgesic effect is almost instant because of the rapid evaporation that results in cooling and numbing of the skin. This effect lasts for about 30-45 seconds until the skin re-warms, but will vary depending upon circumstances and area. It is classed as a device therefore does not require a prescription or PGD.

In addition to the inclusions and exclusions mentioned below, Sandyford nursing staff can supply Ethyl chloride spray topical vapo-coolant analgesia for the insertion of Nexplanon® in clinic.

Inclusion Criteria:

- Patients aged 13 years or over.
- To provide topical “anaesthesia” prior to the subdermal insertion of Nexplanon®.

Exclusion Criteria:

- Hypersensitivity to Ethyl Chloride Spray ingredients/ excipients.
- Patients taking medication that interferes with Ethyl Chloride Spray
- Not for use on wounds, broken skin, eczema, mucous membranes or blistered or broken skin
- Exchange or removal of implant

4 GUIDELINES:

Administration - for external use only

A thin film of liquid is sprayed along the planned insertion tunnel onto the skin requiring analgesia, until a thin snow film forms (short bursts of spray rather than a continuous flow is usually better).

Technique for optimal effective of ethyl chloride spray

- Ensure that the Nexplanon® and pack is open and ready to insert immediately as the effects of ethyl chloride only last for a few seconds to a minute. Ensure you have 2 pairs of sterile gloves. Clean ethyl chloride spray canister with Clinitex wipe. Add some petroleum jelly onto dressing pack.
- Put on the 2 pairs of sterile gloves.
- Before applying ethyl chloride spray, clean the site with agent containing at least 2% chorhexidine with 70% alcohol.
- Petroleum jelly may be applied to protect skin surrounding area of insertion.

- Hold the can on its side 3-9 inches (8-23 cms) away from the skin. It is easiest to spray a flat, horizontal surface.
- A fine tube can be attached for more accurate application.
- Press the nozzle gently and let the fluid drip onto the skin for 4-10 seconds. It will feel very cold and a thin white film will appear. Stop spraying before the skin frosts to avoid causing a 'burn'.
- Remove one pair of gloves as the ethyl chloride canister is not sterile.
- Nexplanon® implant should then be inserted immediately or within a few seconds to a minute of spraying the area.
- Please record on Nash as supplied and administered without using the PGD drop down box.

WARNINGS

- Do not apply to open wounds or damaged, blistered, broken, or inflamed skin. Repeated exposure or prolonged spraying to same aresa of skin may cause pain and frostbite. Deeper implant insertion is possible if the tissue is 'frozen'.
- If ethyl chloride spray gets onto face, eyes, nose or mouth rinse immediately with cool water.
- Do not inhale ethyl chloride as it may cause severe drowsiness and may lead to deep anaesthesia or coma with respiratory or cardiac arrest.
- Flammable. Do not store or use near electrical heat or a naked flame. Use only in well ventilated areas.

SIDE EFFECTS

May cause itching, swelling or bruising where the spray has been applied. Some change in skin colour is normal. Uncommon side effects may include lasting changes to skin colour, pain as skin thaws, infection at insertion site. A serious allergic reaction to ethyl chloride is extremely unlikely, but seek immediate medical attention if anaphylaxis suspected.

STORAGE

Store at room temperature not exceeding 20°C in a dry and well-ventilated area. Do not store on or near high frequency ultrasound or electrocautery equipment. Protect from sunlight. Keep out of the reach of children.

OCCUPATIONAL EXPOSURE AND RISK:

There are no serious health hazards in connection with its occasional clinical use provided it is used in a well-ventilated area. In situations where the gas is regularly and frequently being released into the working environment a risk assessment should be conducted to ensure adequate ventilation is provided to reduce user's exposure to below the maximum exposure limit where possible. Over-exposure to ethyl chloride may cause headache, dizziness, vomiting and loss of co-ordination and disorientation. Breathing fresh uncontaminated air relieves minor symptoms of toxicity. Skin sensitisation may occur on repeated exposure and very rarely acute allergic eczematous dermatitis and delayed allergic reaction has been reported. Liquid ethyl chloride will attack some forms

of plastic, rubber and coatings.