### Etonogestrel-releasing implant

**Indication**
Contact with health services for insertion of contraceptive device

**INN**
Etonogestrel

**Medicine type**
Chemical agent

**List type**
Core

**Formulations**
Implant > Subdermal: 68 mg single rod

**EML status history**
First added in 2015 (TRS 994)

**Sex**
Female

**Age**
Adolescents and adults

**Therapeutic alternatives**
The recommendation is for this specific medicine

**Patent information**
Main patents have expired but secondary patents might remain active in some jurisdictions. For more information on specific patents and license status for developing countries visit [www.MedsPal.org](http://www.MedsPal.org).

**Wikipedia**
Etonogestrel-releasing implant

**DrugBank**
Etonogestrel

---

**Summary of evidence and Expert Committee recommendations**

An application was submitted by Merck Sharp & Dohme, Kenilworth, NJ, USA, for the inclusion of a long-acting etonogestrel-releasing subdermal implant on the Model List of Essential Medicines. It was proposed that the listing would complement the current listing of the levonorgestrel-releasing implant and allow countries to choose the implant best suited to local needs.

Etonogestrel implants are widely available, including through government and international donor purchasing programmes. Both Implanon® and Implanon NXT® are WHO prequalified products. Implanon NXT® is bioequivalent to Implanon®; it includes an applicator to facilitate insertion and radiopaque barium sulfate to facilitate detection of the implant at the time of insertion and removal (1). The preloaded, sterile, single-use applicator is suited to mobile clinics and environments with limited health infrastructure and avoids the need for incision required for manually-loaded two rod systems. The UN Commission on Life-Saving Commodities for Women and Children has prioritized implants as one of the 13 life-saving commodities for long-term contraception (2). Etonogestrel-releasing implants are included in WHO’s Medical eligibility criteria for contraceptive use and are rated 1 (no restriction) or 2 (advantages outweigh theoretical or proven risks) for most of the conditions listed (3, 4). The etonogestrel-releasing implants, containing 68 mg of etonogestrel, provide up to three years’ reversible contraception, with rapid return to fertility on implant removal (5). Three contacts with health service providers are required – for insertion, for a 3-month check and for removal. The application calculated event rates for efficacy end-points from pooled data from available studies (5–17), which showed a pregnancy rate of 0.15% (3 of 1995 subjects) and continuation rates of 86.5% at year 1, 77.4% at year 2 and 65.6% at year 3. The application presented results of a meta-analysis of direct comparisons between etonogestrel-releasing implants and other long-acting reversible contraceptives (LARCs): levonorgestrel-releasing implants, depot medroxyprogesterone acetate (DMPA), levonorgestrel intrauterine devices (IUDs) and copper-containing IUDs. No significant differences were observed in rates of pregnancy between etonogestrel-releasing implants and other LARCs or in rates of continuation between etonogestrel- and levonorgestrel-releasing implants. Continuation rates for etonogestrel-releasing implants were significantly higher compared with DMPA within the first year of use, but no significant differences in continuation rates were observed between...