

## Statement from the Clinical Effectiveness Unit

### Intravascular insertion of Nexplanon®

June 2016

MSD has circulated a letter to healthcare professionals in the UK regarding a small number of reports of Nexplanon contraceptive implants inadvertently inserted into blood vessels [1]. The majority have been intravenous insertions with migration of the implants to the pulmonary vasculature [2-6]. One case involved insertion into an artery: the implant migrated distally [7].

A recent literature review and review of reports to the UK Medicines and Healthcare products Regulatory Agency [8] identifies a total of eight intravascular Nexplanon insertions since 2010 in the UK, Ireland and France [2-6, 8]. In comparison, the manufacturer estimates that 174,000 women were using Nexplanon in 2015. **While serious, intravascular insertion is an extremely rare event.**

Intravascular Nexplanon insertion can be avoided with proper insertion techniques. The manufacturer now recommends that Nexplanon be inserted “at the inner side of the non-dominant upper arm about 8-10 cm (3-4 inches) above the medial epicondyle of the humerus, AVOIDING the sulcus between the biceps and triceps muscle where the large blood vessels and nerves lie in the subcutaneous tissue. The implant should be inserted subdermally just under the skin.”[9]

**The CEU reminds healthcare professionals (HCPs) to fit Nexplanon subdermally. The insertion device cannot be relied upon to safeguard against deep insertion. Clinicians should be vigilant throughout the fitting procedure to make sure that the insertion needle is just under the skin along its whole length. The CEU supports the manufacturer’s advice that Nexplanon insertion should avoid the sulcus between biceps and triceps. Further to this, the CEU recommends insertion over the biceps muscle anterolateral to the sulcus to avoid damage to the ulnar nerve which runs posteromedial to the sulcus.**

The manufacturer strongly recommends that Nexplanon only be inserted (and removed) by HCPs who have undergone training on the use of the Nexplanon applicator and insertion techniques [9]. **The CEU advises that HCPs offering Nexplanon insertion should hold the FSRH Letter of Competence in Subdermal Contraceptive Implant Techniques or equivalent, having undergone formal training, maintained their competence and attended regular updates [10].**

Both HCP and women receiving Nexplanon should be able to feel the implant under the skin after insertion and instructed to return if they cannot later feel it. If a clinician cannot locate the implant, the woman must be referred to a regional specialist service so that the implant can be located.

**Nexplanon is a convenient and extremely effective long-acting reversible method of contraception. Women can be advised that intravascular insertion of Nexplanon is extremely rare. This reminder to HCPs will ensure that those fitting Nexplanon are vigilant to the possibility of intravascular insertion and take appropriate steps to safeguard against deep insertion.**

## References

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