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## Contraception In Primary Care – A Comprehensive Review

(Primary Care Revision Series) .

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### Abstract

Contraception is a diverse topic and choosing the correct contraceptive method is a complex decision. More than 222 million women worldwide need effective and safe contraception. Primary care physicians are faced with this challenge on a day to day basis and it is important to know all available options with individual indications, contraindications, side effects, efficacy, cost effectiveness and reasons of failure to provide effective and safe counselling to the patients. Primary care physicians play a vital role in patients' decision making by providing accurate information. This article provides a comprehensive review of different contraceptive options for primary care physicians and focuses on all the important aspects of hormonal as well as non-hormonal contraceptives including daily use pills, cutaneous patches, vaginal rings as well as long acting reversible contraceptives including injections, implants and intrauterine coils. Women aged >40 years have a separate contraception guidance given their higher risks of gynaecological cancers and other conditions. Also, post-partum contraception and emergency contraception are important aspects and all the topics are discussed comprehensively. Barrier methods and surgical



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options are out of scope of this article. Most of the referencing is taken from Faculty of Sexual and Reproductive Health (FSRH) UK guidelines.

### نبذة مختصرة

منع الحمل موضوع متنوع واختيار وسيلة منع الحمل الصحيحة هو قرار معقد. تحتاج أكثر من 222 مليون امرأة في جميع أنحاء العالم إلى وسائل منع حمل فعالة وآمنة. يواجه أطباء الرعاية الأولية هذا التحدي على أساس يومي ومن المهم معرفة جميع الخيارات المتاحة مع المؤشرات الفردية وموانع الاستعمال والآثار الجانبية والفعالية والفعالية من حيث التكلفة وأسباب الفشل في تقديم مشورة فعالة وآمنة للمرضى. يلعب أطباء الرعاية الأولية دورًا حيويًا في اتخاذ قرارات المرضى من خلال توفير معلومات دقيقة. تقدم هذه المقالة مراجعة شاملة لخيارات منع الحمل المختلفة لأطباء الرعاية الأولية وتركز على جميع الجوانب المهمة لوسائل منع الحمل الهرمونية وكذلك غير الهرمونية بما في ذلك حبوب الاستخدام اليومي والبقع الجلدية وحلقات المهبل وكذلك موانع الحمل الطويلة المفعول التي يمكن عكسها بما في ذلك الحقن ، يزرع والملفات داخل الرحم. لدى النساء اللواتي تزيد أعمارهن عن 40 عامًا إرشادات منفصلة حول وسائل منع الحمل نظرًا لارتفاع مخاطر تعرضهن لسرطان أمراض النساء وغيرها من الحالات. أيضا ، وسائل منع الحمل بعد الولادة ووسائل منع الحمل الطارئة هي جوانب مهمة وتناقش جميع المواضيع بشكل شامل. طرق الحاجز والخيارات الجراحية خارج نطاق هذه المقالة. معظم المراجع مأخوذة من إرشادات كلية الصحة الجنسية والإنجابية (FSRH) في المملكة المتحدة.

### Key Words & Abbreviations

- |   |            |
|---|------------|
| - Cardiovascular Disease                  | - (CVD)    |
| - Combined Oral Contraceptive Pill        | - (COCP)   |
| - Combined Hormonal Contraception         | - (CHC)    |
| - Combined Transdermal Patch              | - (CTP)    |
| - Combined Vaginal Ring                   | - (CVR)    |
| - Depo Medroxyprogesterone acetate.       | - (DMPA)   |
| - Faculty of Sexual & Reproductive Health | - (FSRH)   |
| - Intrauterine System – Mirena            | - (IUS)    |
| - Intrauterine Device – Copper Coil       | - (Cu-IUD) |
| - Progestogen Only Pill                   | - (POP)    |
| - Progesterone Only Contraception         | - (POC)    |
| - Unprotected Sexual Intercourse          | - (UPSI)   |



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## Introduction

Contraception is defined as intentional prevention of conception or pregnancy by various methods which include sexual practices, medicines, devices and surgical procedures. In recent years, the management of contraception has moved mainly to primary care. As a primary care physician, it is important to provide an effective contraception with maximum comfort, privacy, minimal cost and side effects. Hence primary care physicians are required to know all important aspects related to different methods of contraception that can be offered in primary care setting (Jain & Muralidhar, 2011).

Contraceptive methods vary widely in respect to their mechanisms of actions and effectiveness, but their effectiveness can fail due to number of reasons. It can be difficult to decide which method to go for depending on various factors which include effectiveness, convenience, frequency, reversibility, affordability, compliance, contraindications, complications and side effects. A primary care physician needs to be aware of and look at all these important aspects and must balance the advantages and disadvantages of each method to provide a better contraceptive choice to their patients (Patient Education: Birth Control; Which Method Is Right for Me? (Beyond the Basics) - UpToDate, 2021). Barrier methods and sterilisation are out of scope of this article and will not be discussed.

## UKMEC Criteria

The UK Medical Eligibility Criteria for Contraceptive Use (UKMEC) gives recommendations for all types of non-barrier contraceptives and grades them on a scale of 1-4 based on a woman's personal circumstances.

- **Category -1** No restrictions to use
- **Category- 2** When advantages outweigh the disadvantages
- **Category- 3** When disadvantages outweigh the advantages
- **Category- 4** Unacceptable health risk.



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UKMEC	Definition of category
Category 1	A condition for which there is no restriction for the use of the method.
Category 2	A condition where the advantages of using the method generally outweigh the theoretical or proven risks.
Category 3	A condition where the theoretical or proven risks usually outweigh the advantages of using the method. The provision of a method requires expert clinical judgement and/or referral to a specialist contraceptive provider, since use of the method is not usually recommended unless other, more appropriate methods are not available or not acceptable.
Category 4	A condition which represents an unacceptable health risk if the method is used.

**Table-1: UK Medical Eligibility Criteria for Contraceptive Use (UKMEC) – Taken from (FSRH Clinical Guideline: Contraception for Women Aged over 40 Years (August 2017, Amended September 2019) - Faculty of Sexual and Reproductive Healthcare, n.d.)**

In updated UKMEC guideline, barrier methods, lactational amenorrhea and male and female sterilisation methods have been removed. It should be noted that UKMEC provides guidance regarding the safety of contraceptive method only and not efficacy or actions (UK Medical Eligibility Criteria for Contraceptive Use, Aug 2016.).

### Contraception Types

Over last 50 years, the development of different types of effective contraception has been of the most significant advancement in the field of medicine. Contraceptives are classified in various ways and one easy classification is as under (The Different Types of Contraception -, March 2017)

#### - Barrier Methods

- o Condoms (Male / Female)

#### - Hormonal Methods

- o Combined Hormonal Contraception (CHC) (Tablets / Patches / Rings)



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- o Progesterone Only Contraception (POC) (Tablets / Depo-Injections / Implants)

**- Intrauterine Contraceptive devices (IUCDs)**

- o Copper (Cu-IUD)
- o Levonorgestrel releasing intrauterine system (IUS)

Long acting reversible contraceptives (LARCs) is a term used for the contraceptive methods used less frequently than once a month and can be reversed when stopped. These include the progesterone depo-injections, implants and IUCDs (*FSRH Clinical Guideline: Progestogen-Only Injectable (December 2014, Amended October 2020) - Faculty of Sexual and Reproductive Healthcare, n.d.*).

**Mechanism of Action of Different Contraception Types**

Different types of contraception have different mechanisms of actions. Some work through localized effect within female reproductive tract while some work through inhibiting the ovulation by acting on hypothalamic-pituitary-ovarian axis. A brief description of different contraceptives and their mechanisms of actions is summarised as under.

<b><u>Type of Contraceptive</u></b>	<b><u>Mechanism of Action</u></b>
CHC	Inhibit Ovulation
POP (Except Desogestrel)	Make cervical mucus thicker
Desogestrel POP	Inhibit ovulation + make cervical mucous thicker
Depo Injections	Inhibit ovulation + make cervical mucous thicker
Implants	Inhibit ovulation + make cervical mucous thicker
Cu-IUD	Decrease sperm survival and motility (Toxic to sperms and ovum)



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IUS	Inhibit endometrial proliferation + make cervical mucous thicker
Lenonorgestrel	Inhibit ovulation
Ulipristal	Inhibit ovulation

**Table-2: Mechanism of actions of different contraceptives – Reproduced from (Contraceptive\_pharmacology [TUSOM | Pharmwiki], n.d.)**

### **Time of Onset of Contraceptives**

Usually if started with in first 5 days of menstrual cycle, then all types of contraceptives are effective immediately and do not require any additional contraception. If started after first 5 days of menstrual cycle, then the time of onset of action is either immediate or effective after 48 hours or effective after 7 days and women will need additional contraception accordingly (FSRH Clinical Guideline: Quick Starting Contraception (April 2017) - Faculty of Sexual and Reproductive Healthcare, n.d.).

#### **- Immediate**

- o Cu-IUD

#### **- 48 hours**

- o Progesterone Only Pills

#### **- 7 days**

- o Combined Hormonal Contraception (Tablets / Patches / Rings)
- o Progesterone Injections
- o Progesterone Implants



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- o Levonorgestrel releasing intrauterine system (IUS)

### Combined Hormonal Contraception (CHC)

CHC have been in use worldwide for > 60 years. CHC contain both estrogen and a progestogen which can be used either as an oral pill (COCP), transdermal patch (CTP) or a vaginal ring (CVR). CHC are highly effective but user dependent. If used effectively then success rate is around 99%. CHC are usually associated with increased risk of thromboembolic events. As a general rule, the COCP containing higher doses of ethinylestradiol (EE)  $\geq 35\mu\text{g}$  are associated with greater risks of thromboembolism. Also, COCP containing Levonorgestrel, norethisterone and norgestimate are associated with lower risks of thromboembolic events. CHC are traditionally used as 21/7 regimen with monthly drawl bleed, but this regimen has no benefit over continuous use patterns. CHC work mainly by suppressing hypothalamic-pituitary-ovarian axis thus preventing ovulation (FSRH Clinical Guideline: Combined Hormonal Contraception (January 2019, Amended November 2020) - Faculty of Sexual and Reproductive Healthcare, n.d.)

CHC use reduces risks of endometrial, ovarian and colorectal cancers but increases the risk of breast and cervical cancer. Women who smoke should stop CHC  $\geq 35$  years of age given higher risk of mortality with smoking. It is important to be aware of UKMEC conditions for CHC given their higher risks (*UKMEC April 2016 Summary Sheet (Amended September 2019)* - Faculty of Sexual and Reproductive Healthcare, n.d.)



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<b><u>UKMEC – 4 Conditions for CHC</u></b> <b><u>(Contraindications)</u></b>	<b><u>UKMEC - 3 Conditions for CHC</u></b> <b><u>(Disadvantages Outweigh Advantages)</u></b>
Age > 35 years + smoking > 15 cigarettes/day	Age > 35 years + smoking < 15 cigarettes/day
Migraine with aura at any age	BMI > 35 kg/m <sup>2</sup>
History of thromboembolic disease or thromboembolic mutation	History of thromboembolic disease in first degree relative < 45 years age
History of ischemic heart disease or stroke	Multiple CVD risks (smoking, obesity, diabetes, hypertension, dyslipidaemia)
Uncontrolled hypertension (BP ≥ 160/100 mmHg)	Controlled hypertension (BP Systolic 140-159 & Diastolic 90-99 mmHg)
Active breast cancer	Carrier of breast cancer gene BBRCA1/BRCA2
Breast feeding < 6 weeks post-partum	Active gall bladder disease
Major surgery with prolonged Immobilisation	Wheelchair bound
Complicated valvular or congenital heart disease	Diabetes with neuropathy / nephropathy / retinopathy
Atrial Fibrillation, Advanced Liver Cirrhosis, Liver Tumours	

**Table-3: UKMEC 4 & 3 criteria for CHC – Reproduced from (UKMEC April 2016 Summary Sheet (Amended September 2019) - Faculty of Sexual and Reproductive Healthcare, n.d.)**

**Combined Oral Contraceptive Pill** Majority of COCP are taken for 28 days cycle with active pills for 21 days and pill free period for 7 days. The first 7 pills inhibit ovulation and remaining 14 pills maintain anovulation. The 21 days cyclic regimen is not mandatory and





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COCOP can be taken on 3 monthly cycle (9 weeks) with withdrawal bleed for 1 week after every 3 months. Women with bariatric surgery should avoid all types of oral contraceptives including emergency contraceptives as surgery reduces the contraceptive effectiveness (*FSRH Clinical Guideline: Combined Hormonal Contraception (January 2019, Amended November 2020) - Faculty of Sexual and Reproductive Healthcare, n.d.*). If someone is taking enzyme inducers then the minimum dose of ethinylestradiol (EE) should be  $\geq 50\mu\text{g}$  especially if pill is the only method of contraception. This could mean taking 2 pills every day for higher doses (Contraception and Epilepsy | Epilepsy Society, n.d.).

**COCOP Missed Pill Rule** FSRH recommends that if only 1 pill is missed at any time during the 21 day cycle, then to take the missed pill along with second pill due that day without any additional contraception requirements and if women had UPSI then no need of emergency contraception as well. If 2 or more then 2 pills are missed, then take the missed pill along with second pill due that day. Women should either use condom or abstain from sex for another 7 days until establishes back on the pill. If pills were missed in 1<sup>st</sup> week of cycle (Days 1-7) and woman had UPSI then emergency contraception will be needed as women had a 1 week pill free interval before that. If pills were missed in second week (Days 8-14) then there is no need of emergency contraception, but 7 days protection or abstinence must be used. If pills were missed in third cycle (Days 15-21), then finish the current pack and start next pack immediately without 1 week pill free interval with no need of emergency contraception but 7 days protection or abstinence must be used (*FSRH Clinical Guideline: Combined Hormonal Contraception (January 2019, Amended November 2020) - Faculty of Sexual and Reproductive Healthcare, n.d.*)

**Combined Transdermal Patch** One patch is applied to skin for 7 days to suppress ovulation and changed weekly for another 2 weeks to maintain anovulation. Fourth week is kept patch



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free to allow withdrawal bleed. It is less effective in women weighing > 90kg. Can we worn while swimming, bath and playing sports (*Contraceptive Patch*, 2017).

**Patch Rules** CTP can either get detached from the skin or the change can be delayed. If the patch was detached or change was delayed at the end of 1<sup>st</sup> or 2<sup>nd</sup> week and the delay is < 48 hours, then the new patch should be applied immediately without any further precautions. If the detachment or delay is > 48 hours, then the new patch should be applied immediately with additional contraception for 7 days. If woman had UPSI then will need emergency contraception. If the new patch application was delayed at the end of patch free period, then additional contraception for 7 days will be required along with new patch application (*FSRH CEU Guidance: Recommended Actions after Incorrect Use of Combined Hormonal Contraception (e.g. Late or Missed Pills, Ring and Patch) (March 2020, Amended July 2021) - Faculty of Sexual and Reproductive Healthcare, n.d.*).

**Combined Vaginal Ring** Single vaginal ring is inserted into vagina for 21 days and removed for 7 days after 21 days to give withdrawal bleed. Few studies have shown that the CVR provides contraceptive effect up to 4 weeks if left in situ (*Vaginal Ring*, 2017) (*FSRH Clinical Guideline: Combined Hormonal Contraception (January 2019, Amended November 2020) - Faculty of Sexual and Reproductive Healthcare, n.d.*).

### Progestogen Only Contraception (POC)

POC has been in use for some time now and include Progesterone only pill (POP), Depo-injections and Implants. The **UKMEC-4** for POC is active breast cancer or breast cancer with in last 5 years. **UKMEC-3** conditions for POC are as under (*UKMEC April 2016 Summary Sheet (Amended September 2019) - Faculty of Sexual and Reproductive Healthcare, n.d.*)



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<u>UKMEC - 3 Conditions for POC</u>
Past Breast Cancer > 5 years old
Severe decompensated Liver Cirrhosis
Vascular Disease for Depo-Injection
Multiple CVD risks (smoking, obesity, diabetes, hypertension, dyslipidaemia) for Depo-Injection
History of ischemic heart disease or stroke
Unexplained Vaginal Bleed (suspicious for serious condition) for Depo and Implant (POP excluded)
Liver Tumours (Benign & Malignant)

**Table-4 UKMEC - 3 criteria for POC – Reproduced from (UKMEC April 2016 Summary Sheet (Amended September 2019) - Faculty of Sexual and Reproductive Healthcare, n.d.)**

**Progestogen only Pill (POP)** are taken daily without any pill free interval. POP in UK come as second-generation hormones (Norethisterone 350µg, Levonorgestrel 30µg, Ethynodiol Diacetate) or third generation Desogestrel 75µg (Cerazette®). Second generation POP work by making cervical mucous thick and preventing sperm penetration into upper reproductive tract. Desogestrel apart from making cervical mucous thick also inhibits ovulation (97% of cycles). This is the reason that the missed pill window period for all POPs is 3 hours i.e 27hrs from last pill taken while for Desogestrel is 12 hours i.e 36hrs from last pill taken. It is important that POP need to be taken at same time each day to ensure maximum efficacy (FSRH Clinical Guideline: Progestogen-Only Pills (March 2015, Amended April 2019) - Faculty of Sexual and Reproductive Healthcare, n.d.). POP are less effective when taken along with enzyme inducer medications and are not recommended method of contraception (Contraception and Epilepsy | Epilepsy Society, n.d.). When switching from POP to COCP, a



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barrier contraception is usually needed for 7 days as POP (except Desogestrel) do not inhibit ovulation.

**POP Missed Pill Rule** The missed pill should be taken as soon as remembered. If more than one pill is missed, then take only 1 missed pill with next pill taken at usual time. Additional contraception may be needed for 48hrs if out of window period i.e 27hrs for all POP and 36hrs for Desogestrel. If women had an UPSI during this time then emergency contraception will be needed (*FSRH Clinical Guideline: Progestogen-Only Pills (March 2015, Amended April 2019) - Faculty of Sexual and Reproductive Healthcare, n.d.*).

**Depo Injection** Depo-Provera is the main injectable contraceptive currently available in UK and is a safer choice in patients taking enzyme inducers (e.g Rifampicin, Topiramate, Barbiturates etc) as it is least likely to be affected ([Figure-1](#)). Depo injection contains Medroxyprogesterone acetate 150mg (DMPA) and is given as an intramuscular injection once every 12 weeks. However, the contraceptive effect lasts up to 14 weeks, the 12 weeks period is recommended as a safety precaution. It works by inhibiting ovulation and making cervical mucous thick. It is associated with irregular bleed, weight gain, delayed return of fertility (may take upto 1 year), decreasing bone mineral density and increased risk of osteoporosis (*FSRH Clinical Guideline: Progestogen-Only Injectable (December 2014, Amended October 2020) - Faculty of Sexual and Reproductive Healthcare, n.d.*). Another injectable progestogen Noristerat 200mg is available in UK and is given for 8 weeks. It is meant to be for short term contraception when women are waiting for their partners to have successful vasectomy or if are being immunised against Rubella (*Noristerat Injection Provides 8 Weeks of Pregnancy Protection, n.d.*).

### **Implants**



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Nexplanon is an Etonogestrel containing subdermal implant (ENG-IMP) and is the only available implant in UK. It works by inhibiting ovulation and also thickens cervical mucous. ENG-IMP is a type of LARC and provides contraceptive effect for 3 years and is not user dependent. Although routine use after 3 years is not recommended but the rate of pregnancy during the 4<sup>th</sup> year is very low and UPSI during 4<sup>th</sup> year does not usually require emergency contraception. Failure rate is 0.05% hence it is the most effective form of contraception. Irregular bleed / heavy bleed is a common side effect and can be managed by co-prescribing COCP. Enzyme inducer drugs can affect the efficacy of ENG-IMP. There is no significant risk of thromboembolic events, no effect on bone mineral density (*FSRH Clinical Guideline: Progestogen-Only Implant (February 2021) - Faculty of Sexual and Reproductive Healthcare, n.d.*).

### Intrauterine Contraceptive Devices (IUCDs)

Intrauterine contraceptive devices (IUCDs) consist of copper (Cu-IUD) and Levonorgestrel releasing intrauterine system (LNG-IUS). Both are more than 99% effective methods of contraception.

**Cu-IUD** works by decreasing sperm motility and preventing fertilisation and is effective immediately after insertion. Majority of Cu-IUDs have copper on stem only and are effective for 5 years, whereas those with copper on stem and arms are effective up to 10 years. Cu-IUDs can make periods heavier, painful and longer and are not a good choice for menorrhagia. Cu-IUD may be associated with lower risks of cervical and endometrial cancers. (*FSRH Clinical Guideline: Intrauterine Contraception (April 2015, Amended September 2019) - Faculty of Sexual and Reproductive Healthcare, n.d.*).

**LNG-IUS** contains Levonorgestrel (LNG) 52mg (Mirena® and Levosert®) and works by thickening cervical mucous and preventing endometrial proliferation. IUS is usually effective



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after 7 days of insertion. If used for hormonal contraception, then effective for 5 years. If used as part of hormone replacement therapy (HRT) then licensed for only 4 years and is the only contraception licensed to be used as part of HRT. IUS can initially make periods frequent with spotting but later cause less dysmenorrhea and some women become amenorrhoeic and can be used in women with menorrhagia, dysmenorrhea, endometriosis and adenomyosis. There is no increased risk of breast cancer or risk of venous thromboembolism or myocardial infarction (FSRH Clinical Guideline: Intrauterine Contraception (April 2015, Amended September 2019) - Faculty of Sexual and Reproductive Healthcare, n.d.).

**IUCDs Risks** All IUCDs carry a risk of uterine perforation up to 2 / 1000, especially in those who are breast feeding. They decrease the number of total pregnancies but increase the risk of ectopic pregnancies. Expulsion risk is around 1 in 20 and is increased in first 3 weeks of insertion. Also, there is increased risk of pelvic inflammatory disease (PID) in first 3 months of insertion. Some women do experience pain or bleeding issues after IUCD insertion which can be managed by NSAID use (FSRH Clinical Guideline: Intrauterine Contraception (April 2015, Amended September 2019) - Faculty of Sexual and Reproductive Healthcare, n.d.). IUCDs should not be inserted in case of PID or postabortion sepsis (FSRH, RCOG & RCM Statement Provision of Postpartum Contraception during Covid-19 - Faculty of Sexual and Reproductive Healthcare, n.d.).

**New IUS** There are 2 new IUS licensed for use in UK. Jaydess<sup>®</sup> IUS has less Levonorgestrel then Mirena<sup>®</sup> (13.5mg vs 52mg). This gives lower serum LNG levels and Jaydess is licensed for 3 years. Kyleena<sup>®</sup> IUS has 19.5mg of LNG and is licensed for 5 years (Bayer-DD-IUS.Pdf, n.d.) (FSRH New Product Review: Kyleena<sup>®</sup> 19.5 Mg Intrauterine Delivery System (January 2018, Amended March 2019) - Faculty of Sexual and Reproductive Healthcare, n.d.).



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Type of LNG-IUS	Kyleena <sup>3</sup>	Mirena <sup>4</sup>	Levosert <sup>5</sup>	Jaydess <sup>6</sup>
Total LNG content (mg)	19.5	52	52	13.5
LNG release rate (mcg/24h)				
Initial	17.5	20	19.5	14
Final	7.4 (after 5 year)	10 (after 5 years)	9.8 (after 5 years)	5 (after 3 years)
Average	9 (over 5 years)	14 (over 5 years)	14.7 (over 5 years)	6 (over 3 years)
Frame size (W x H, mm)	28 x 30	32 x 32	32 x 32	28 x 30
Inserter	One handed EvoInserter™	One handed EvoInserter™	Two-handed inserter	One handed EvoInserter™
Insertion tube diameter (mm)	3.8	4.4	4.8	3.8
Silver ring for improved visibility on USS?	Yes	No	No	Yes
Colour of threads	Blue	Brown	Blue	Brown
Licensed duration of use for contraception (years)	5	5	5	3

**Table-5: Comparison of LNG containing IUCDs – Taken from FSRH (FSRH New Product Review: Kyleena® 19.5 Mg Intrauterine Delivery System (January 2018, Amended March 2019) - Faculty of Sexual and Reproductive Healthcare, n.d.)**

IUCDs are not usually affected by enzyme inducer medications. A quick reference guide is shown in [Figure-1](#) below.

Drug type	CHC	POP	IMP	DMPA	LNG-IUS	Cu-IUD (EC)	LNG-EC	UPA-EC
Enzyme-inducers (during use and for 4 weeks afterwards)								

**Known clinical interaction:**  
avoid use & advise alternative method

**Potential interaction:**  
caution required

**No clinical interaction:**  
method suitable

**Contraceptive methods:** CHC, combined hormonal contraception; Cu-IUD, copper intrauterine device; DMPA, progestogen-only injectable; depot medroxyprogesterone acetate; EC, emergency contraception; IMP, progestogen-only implant; LNG-IUS, levonorgestrel-releasing intrauterine system; POP, progestogen-only pill; UPA, ulipristal acetate.

Norethisterone enanthate (NET-EN) is rarely used in UK practice but should be considered as for DMPA.





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**Figure-1 – Quick reference contraception and enzyme inducers – Taken from FSRH (FSRH CEU Guidance: Drug Interactions with Hormonal Contraception (January 2017, Last Reviewed 2019) - Faculty of Sexual and Reproductive Healthcare, n.d.)**

### Contraception for Women aged > 40 years

As women age, they are at increased risks of certain health conditions and along with perimenopausal symptoms they have different sets of needs requiring different treatment goals. Women > 40 years are at increased risk of obesity, breast and other gynaecological cancers and cardiovascular disease and their choice of contraceptive method changes according. Similarly, pregnancy and childbirth after 40 years carry a greater risk of adverse maternal and foetal outcomes. Age alone is not a contraindication for any contraception method. Age wise, all methods of contraception are UKMEC-1. The exceptions are CHC which is UKMEC-2 for  $\geq 40$  years and Depo-Provera UKMEC-2 for  $\geq 45$  years. Combined oral contraception (COCP) containing either norethisterone or levonorgestrel should be used as first-line for women aged > 40 years due to the potentially lower venous thromboembolic risks as compared to other formulations containing other types of progestogens. A pill with  $<30\mu\text{g}$  ethinylestradiol is more suitable for women > 40 years in terms of risks of CVD, thromboembolism and stroke. FSRH supports the use of CHC until 50 years of age if no contraindications. Women should be explained about potential risks of CHC use in their 40s and at the age of 50 should be advised to change from CHC to a progesterone method or non-hormonal method as the risks of CHC outweigh the benefits after 50 years of age (*FSRH Clinical Guideline: Contraception for Women Aged over 40 Years (August 2017, Amended September 2019) - Faculty of Sexual and Reproductive Healthcare, n.d.*).

FSRH recommends extended use of Cu-IUD until menopause when inserted after 40 years age and LNG-IUD until the age of 55 years when inserted > 45 years of age. For





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Depo-injections women after 40 years should be reviewed regularly and after 50 years should be advised to use alternate methods. All women aged  $\geq 55$  years can stop contraception as spontaneous pregnancy after this age is exceptionally rare, even in those who are menstruating. Further details over “Contraception over women aged 40 years” can be obtained from FSRH document (FSRH Clinical Guideline: Contraception for Women Aged over 40 Years (August 2017, Amended September 2019) - Faculty of Sexual and Reproductive Healthcare, n.d.).

### **Postpartum Contraception**

Ideally women should be informed during pregnancy about the options for postpartum contraception to decide beforehand. Women usually require contraception 21 days post-partum and the choice of contraceptive methods depends on if a woman is lactating or non-lactating. FSRH and Family Planning Association give the following advice for contraception during post-partum.

**Lactational Amenorrhea Method (LAM)** can be an effective form of contraception (around 98%) for the first 6 months provided the woman is fully breast feeding (no supplementary feeds) with no long gaps in between feeds, is not having any periods and is under 6 months post-partum and fulfils all above criteria (UKMEC April 2016 (Amended September 2019) - Faculty of Sexual and Reproductive Healthcare, n.d.) (‘Family Planning’, 2016).

**CHC (pill/patch/ring)** in lactating women, it is UKMEC-4 < 6 weeks post-partum and UKMEC-2 from 6 weeks to 6 months post-partum. In non-lactating women, CHC (pill/patch/ring) can be started at 21 days post-partum (not before) with immediate contraceptive effect. After 21 days will need additional contraception for first 7 days. CHC can reduce the production of breast milk in lactating women (UKMEC April 2016 (Amended



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September 2019) - Faculty of Sexual and Reproductive Healthcare, n.d.) ('Family Planning', 2016).

**POC (pill/depo/implant)** are considered safe and can be started at any time post-partum, both in lactating as well as non-lactating women. If started within 21 days post-partum will have immediate contraceptive effect. After 21 days will need additional contraception for first 2 days. A small amount of progestogen may enter breast milk but is not harmful to the new born (UKMEC April 2016 (Amended September 2019) - Faculty of Sexual and Reproductive Healthcare, n.d.) ('Family Planning', 2016). The POP is extremely safe to use and has very few contraindications as per UKMEC criteria. As per FSRH, a 6-month supply of POP should be offered to all postpartum women unless a contraindication (FSRH, RCOG & RCM Statement Provision of Postpartum Contraception during Covid-19 - Faculty of Sexual and Reproductive Healthcare, 2017 n.d.).

GP Infant Feeding Network (GPIFN) advises primary care physicians to fill in Yellow Card if they have any concerns about hormonal contraceptives decreasing milk production. If women are having difficulties with breast feeding, it is advised to use alternate methods and delay hormonal contraception until feeding is well established. For depo injections it is advised to recommend a trial of POP before as depo cannot be reversed for 3 months (The GP Infant Feeding Network (UK), 2017 n.d.).

**IUS and Cu-IUD** are considered safe post-delivery or C-Section and can be inserted either within 48 hours of delivery or after 4 weeks post-partum but not between 48 hrs to 4 weeks. If inserted within 48 hours, then both IUS & Cu-IUD are immediately effective. If after 4 weeks, the Cu-IUD is immediately effective, but IUS needs 7 days of additional contraception. There is risk of perforation in 2/1000 insertions especially if lactating. IUCDs should not be inserted in case of pelvic inflammatory disease (PID) or postabortion sepsis

(UKMEC April 2016 (Amended September 2019) - Faculty of Sexual and Reproductive Healthcare, n.d.) ('Family Planning', 2016).

In short, although contraception is not required in first 21 days postpartum, most contraceptive methods can be safely started immediately postpartum, in both lactating as well as non-lactating women, except CHC. UKMEC criteria must be applied for suitability of contraceptive method in all cases. Emergency contraception will be required if woman had an UPSI from 21 days onwards postpartum (2021-02-Guidance-on-the-Provision-of-Contraception-by-Maternity-Services-after-Childbirth-during-the-Covid-19-Pandemic.Pdf, n.d.).

Condition	Cu-IUD	LNG-IUS	IMP	DMPA	POP	CHC
Postpartum (in breastfeeding women)						
a) 0 to <6 weeks	See below		1	2	1	4
b) ≥6 weeks to <6 months (primarily breastfeeding)			1	1	1	2
c) ≥6 months			1	1	1	1
Postpartum (in non-breastfeeding women)						
a) 0 to <3 weeks	See below					
(i) With other risk factors for VTE*			1	2	1	4
(ii) Without other risk factors			1	2	1	3
b) 3 to <6 weeks						
(i) With other risk factors for VTE*			1	2	1	3
(ii) Without other risk factors			1	1	1	2
c) ≥6 weeks			1	1	1	1
Postpartum (in breastfeeding or non-breastfeeding women, including post-caesarean section)						
a) 0 to <48 hours	1	1	See above			
b) 48 hours to <4 weeks	3	3				
c) ≥4 weeks	1	1				
d) Postpartum sepsis	4	4				

**Table-6: Summary of UKMEC for contraception use in postpartum period**

**(FSRH Clinical Guideline: Contraception After Pregnancy (January 2017, Amended October 2020) - Faculty of Sexual and Reproductive Healthcare, n.d.)**



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### **Emergency Contraception**

Emergency contraception (EC) is offered to all women who had UPSI, who do not wish to conceive and if their regular contraception was used incorrectly or was compromised. EC is divided into two categories, non-hormonal and hormonal. Non-hormonal involves Cu-IUD and hormonal involves two hormones available for use in the UK (Levonorgestrel and Ulipristal). Cu-IUD should be the first choice and hormonal if Cu-IUD is not appropriate or is not acceptable.

**Cu-IUD** should be offered as first choice for emergency contraception and should be considered by all women who had UPSI and do not want to conceive. It is the only form of EC which is effective even after ovulation has occurred. It can be inserted up to 5 days of UPSI or up to 5 days expected post ovulation date, whatever is later. It is 99% effective and works by inhibiting fertilisation or implantation. It provides immediate contraception and is not affected by BMI or weight or other medicines. Also, it provides contraception from all future UPSI events whereas hormonal EC need to be retaken for each UPSI. (FSRH Clinical Guideline: Emergency Contraception (March 2017, Amended December 2020) - Faculty of Sexual and Reproductive Healthcare, n.d.) (FSRH Emergency Contraception Guideline, n.d.).

**Levonorgestrel (LNG)** works by inhibiting ovulation as well as inhibiting implantation and is around 84% effective. Hormonal methods are not effective after ovulation has occurred. It must be taken within 72 hours of UPSI and should be taken as soon as possible as its efficacy decreases with time. It is taken as a single dose of 1.5mg but the dose should be doubled to 3mg if BMI > 26kg/m<sup>2</sup> or weight > 70kg. It can be used more than once in a menstrual cycle if clinically indicated. Majority of women will likely ovulate later in the cycle after LNG use and



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there is a risk of pregnancy with subsequent UPSI. Usually, 1% can vomit after taking the tablet and if vomiting occurs within 3 hours of taking the tablet, then the dose should be repeated. A hormonal contraception can be started or resumed immediately after using Levonorgestrel and no restriction over breast feeding. (FSRH Clinical Guideline: Emergency Contraception (March 2017, Amended December 2020) - Faculty of Sexual and Reproductive Healthcare, n.d.) (FSRH Emergency Contraception Guideline, n.d.)

**Ulipristal (UPA)** is a selective progesterone receptor modulator and works by inhibiting ovulation. It must be taken within 120 hours of UPSI as a single dose of 30mg because sperms are usually viable in the upper genital tract for about 5 days after UPSI. Although previously not allowed, now it can be used more than once in same menstrual cycle if clinically indicated. Combined use with Levonorgestrel is not recommended. Also, patients with severe asthma needing oral steroids should not take it and breast feeding should be delayed for 1 week. Ulipristal can reduce the effectiveness of hormonal contraceptives and vice versa. It is important to note that the ability of UPA to inhibit ovulation reduces if a progesterone is taken within 7 days before or 5 days after UPA use. Therefore, hormonal contraception should be started or resumed after 5 days of Ulipristal use. Barrier methods can be used in between. UPA-EC can reduce the effectiveness of hormonal contraceptives as well. Majority of women will likely ovulate later in the cycle after UPA use and there is a risk of pregnancy with subsequent UPSI (FSRH Clinical Guideline: Emergency Contraception (March 2017, Amended December 2020) - Faculty of Sexual and Reproductive Healthcare, n.d.) (FSRH Emergency Contraception Guideline, n.d.).

**Choosing Between UPA and LNG** It is important to note that hormonal methods of EC are not effective once ovulation has taken place. Between 0 hrs to 96 hrs of UPSI, if the UPSI has taken place 5 days prior the expected ovulation date, then the risk of pregnancy is very high, and UPA should be the first choice. With a recent use of progesterone, the effectiveness of



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UPA can be reduced and LNG can be a better option. With a high BMI > 26 kg/m<sup>2</sup> or weight > 70 kg, the effectiveness of LNG is reduced so either a double dose of LNG (3 mg) or UPA (30 mg) should be used. With enzyme inducer drugs, the effectiveness of both LNG and UPA can be reduced (FSRH Clinical Guideline: Emergency Contraception (March 2017, Amended December 2020) - Faculty of Sexual and Reproductive Healthcare, n.d.) (FSRH Emergency Contraception Guideline, n.d.)

There is good evidence that both LNG and UPA do not cause any harm to early pregnancy or abortion and either one can be used in the same cycle if a woman had another UPSI within same cycle (FSRH Clinical Guideline: Emergency Contraception (March 2017, Amended December 2020) - Faculty of Sexual and Reproductive Healthcare, n.d.) (FSRH Emergency Contraception Guideline, n.d.).



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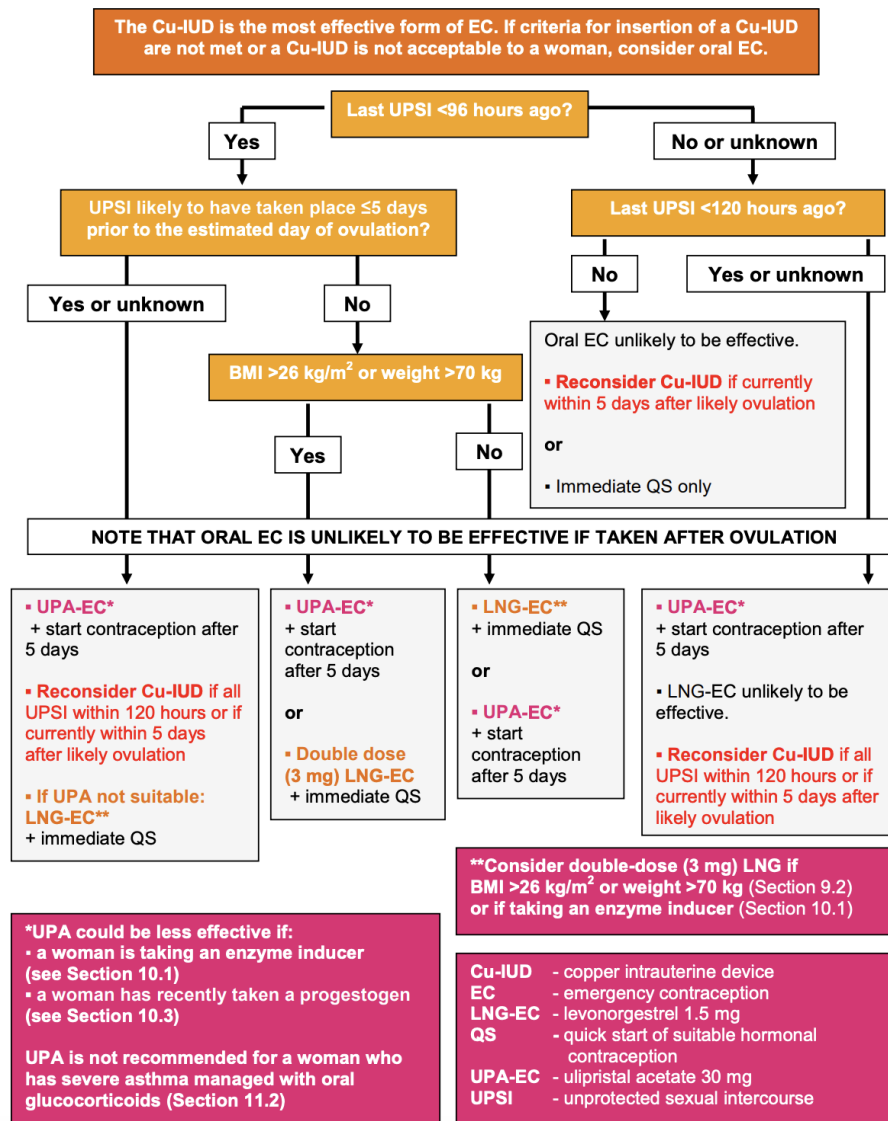
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No:	Emergency Contraception	Effectiveness	High BMI	Enzyme Inducers	Progesterone use within 7 days before or 5 days after UPSI	Contraindications	Breast Feeding	Time of use after UPSI
1	Cu-IUD	Most effective	Not affected	Not affected	Not affected	As of any IUCD	Higher risk of uterine perforation	Can be inserted up to 5 days after UPSI or up to 5 days of expected ovulation date
2	UPA-EC	More effective	Less affected (No dose change)	Could be affected (No dose change)	Efficacy reduced	Asthma with oral steroid use	Avoid breast feeding and discard milk for 1 week	Up to 120 hours (5 days)
3	LNG-EC	Less effective	More affected (Double the dose)	More affected (Double the dose)	Not affected	Current breast cancer	No effect on infants or breast feeding	Up to 72 hours (3 days)

**Table-7: Summary of recommendations for emergency contraception – Taken from (FSRH Clinical Guideline: Emergency Contraception (March 2017, Amended December 2020) - Faculty of Sexual and Reproductive Healthcare, n.d.)**



**Figure-2: Choice of Emergency Contraception - Taken from Faculty of Sexual and Reproductive Healthcare 2017 (FSRH Clinical Guideline: Emergency Contraception (March 2017, Amended December 2020) - Faculty of Sexual and Reproductive Healthcare, n.d.)**





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Method	Clinical recommendation
CHC	<p>✗ • Not advised. • Recommend an alternative method.</p> <p>▶ Women taking rifampicin and rifabutin should <b>always</b> be advised to change to an alternative method.</p> <p>▶ If a woman wishes choice with other enzyme-inducing drugs, consider use of a minimum 50 µg (30 µg + 20 µg) EE monophasic pill during treatment <b>and</b> for a further 28 days with a continuous or tricycling regimen plus pill-free interval of 4 days.</p> <p>▶ Breakthrough bleeding may indicate low serum EE concentrations. Exclude other causes (e.g. chlamydia) and dose of EE can exceptionally be increased up to a maximum of 70 µg EE after specialist advice.</p> <p>▶ Use of two patches or two rings is not recommended.</p>
POP	<p>✗ • Not advised. • Recommend an alternative method.</p>
IMP	<p>✗ • Not advised. • Recommend an alternative method.</p>
DMPA LNG-IUS	<p>✓ • No interaction. • No need for extra precautions.</p>
Cu-IUD (EC)	<p>✓ • No interaction. • Most effective method of EC. • No need for extra precautions.</p>
LNG-EC	<p>• Can use <b>DOUBLE DOSE</b> i.e. 3 mg (2 x 1.5 mg tablet) as a single dose within &lt;72 hours of unprotected sexual intercourse (UPSI) if Cu-IUD is declined or unsuitable. • The effectiveness of 3 mg LNG is unknown in this situation.</p>
UPA-EC	<p>✗ • Double dose not recommended • There is no evidence to support an interaction between <b>ritonavir</b> and <b>UPA</b></p>

**Figure-3: Use of contraceptive methods when woman is using an enzyme Inducers + within 28 days of stopping treatment - Taken from (FSRH CEU Guidance: Drug Interactions with Hormonal Contraception (January 2017, Last Reviewed 2019) - Faculty of Sexual and Reproductive Healthcare, n.d.).**



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## Conclusion

Contraception is an important aspect of primary care and the physicians play a vital role in patients' decision making by carrying the responsibility of providing an effective, safe and accurate information to their patients to make an informed consent. Contraception involves variety of methods and each method has its own benefits and risks. It is important to be aware of UKMEC guidance for individual methods to ensure patient safety. Contraceptives work by either acting locally in female genital tract or by inhibiting ovulation through HPO axis or a combination of both. Cu-IUD is the only option which starts working immediately with POPs taking 48 hours and all the rest of contraceptive options taking 7 days to start their effect. CHC are widely used and can be delivered in the forms of oral pills, transdermal patches and vaginal rings. CHC methods have a huge list of UKMEC conditions affecting their regular use and need a wider understanding of benefits, risks and contraindications (UKMEC-4 & 3). PHC can be delivered in the form of oral pills, dep-injections and implants including LARCs as needed. Many enzyme inducer medications affect the efficacy of CHC and PHC. Depo-Injections are better choice when someone using enzyme inducer medicines. IUCDs offer longer acting contraceptive methods and carry lesser associated risks. Also, IUCDs are not affected by enzyme inducer medications. Women aged above 40 years have a separate contraceptive guidance given certain health conditions and associated risks including gynaecological cancers and cardiovascular disease. Post-partum contraception widely depends on if woman is lactating or non-lactating. All types of CHC cannot be given within 6 weeks postpartum if lactating, rest other options can be used if lactating. All POC are considered safe and IUCDs can be used depending on post-partum interval. Emergency contraception is a very important aspect and has a risk of failure if not taken within specified period. The hormonal ECs do not work if ovulation has already occurred, hence non-hormonal option Cu-IUD is the most effective method. A detailed guidance on each



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aspect and option can be obtained from the Faculty of Sexual & Reproductive Health, UK website.

## References

*2021-02-guidance-on-the-provision-of-contraception-by-maternity-services-after-childbirth-during-the-covid-19-pandemic.pdf*. (n.d.). Retrieved 20 August 2021, from <https://www.rcog.org.uk/globalassets/documents/guidelines/2021-02-guidance-on-the-provision-of-contraception-by-maternity-services-after-childbirth-during-the-covid-19-pandemic.pdf>

*Contraception and epilepsy | Epilepsy Society*. (n.d.). Retrieved 26 August 2021, from <https://epilepsysociety.org.uk/living-epilepsy/women-and-epilepsy/contraception-and-epilepsy>

*Contraceptive patch*. (2017, December 21). Nhs.Uk. <https://www.nhs.uk/conditions/contraception/contraceptive-patch/>

*Contraceptive\_pharmacology [TUSOM | Pharmwiki]*. (n.d.). Retrieved 28 August 2021, from [https://tmedweb.tulane.edu/pharmwiki/doku.php/contraceptive\\_pharmacology](https://tmedweb.tulane.edu/pharmwiki/doku.php/contraceptive_pharmacology)

Family Planning. (2016, September 27). *The GP Infant Feeding Network (UK)*. <https://gpifn.org.uk/family-planning/>

*FSRH CEU Guidance: Drug Interactions with Hormonal Contraception (January 2017, last reviewed 2019)—Faculty of Sexual and Reproductive Healthcare*. (n.d.). Retrieved 26 August 2021, from <https://www.fsrh.org/documents/ceu-clinical-guidance-drug-interactions-with-hormonal/>

*FSRH CEU Guidance: Recommended Actions after incorrect Use of Combined Hormonal Contraception (e.g. Late or missed pills, ring and patch) (March 2020, amended July*



www.mecsjs.com

Multi-Knowledge Electronic Comprehensive Journal For  
Education And Science Publications ( MECSJ )

Issues (48) 2021

ISSN: 2616-9185

2021)—*Faculty of Sexual and Reproductive Healthcare*. (n.d.). Retrieved 28 August 2021, from

<https://www.fsrh.org/documents/fsrh-ceu-guidance-recommended-actions-after-incorrec-t-use-of/>

*FSRH Clinical Guideline: Combined Hormonal Contraception (January 2019, Amended*

*November 2020)*—*Faculty of Sexual and Reproductive Healthcare*. (n.d.). Retrieved 23 August 2021, from

<https://www.fsrh.org/standards-and-guidance/documents/combined-hormonal-contraception/>

*FSRH Clinical Guideline: Contraception After Pregnancy (January 2017, amended October*

*2020)*—*Faculty of Sexual and Reproductive Healthcare*. (n.d.). Retrieved 20 August 2021, from

<https://www.fsrh.org/standards-and-guidance/documents/contraception-after-pregnancy-guideline-january-2017/>

*FSRH Clinical Guideline: Contraception for Women Aged over 40 Years (August 2017,*

*amended September 2019)*—*Faculty of Sexual and Reproductive Healthcare*. (n.d.). Retrieved 21 August 2021, from

<https://www.fsrh.org/standards-and-guidance/documents/fsrh-guidance-contraception-for-women-aged-over-40-years-2017/>

*FSRH Clinical Guideline: Emergency Contraception (March 2017, amended December*

*2020)*—*Faculty of Sexual and Reproductive Healthcare*. (n.d.). Retrieved 20 August 2021, from

<https://www.fsrh.org/standards-and-guidance/documents/ceu-clinical-guidance-emergency-contraception-march-2017/>

*FSRH Clinical Guideline: Intrauterine Contraception (April 2015, amended September*

*2019)*—*Faculty of Sexual and Reproductive Healthcare*. (n.d.). Retrieved 21 August 2021, from



www.mecsjs.com

Multi-Knowledge Electronic Comprehensive Journal For  
Education And Science Publications ( MECSJ )

Issues (48) 2021

ISSN: 2616-9185

<https://www.fsrh.org/standards-and-guidance/documents/ceuguidanceintrauterinecontraception/>

*FSRH Clinical Guideline: Progestogen-only Implant (February 2021)—Faculty of Sexual and Reproductive Healthcare.* (n.d.). Retrieved 29 August 2021, from <https://www.fsrh.org/standards-and-guidance/documents/cec-ceu-guidance-implants-feb-2014/>

*FSRH Clinical Guideline: Progestogen-only Injectable (December 2014, Amended October 2020)—Faculty of Sexual and Reproductive Healthcare.* (n.d.). Retrieved 29 August 2021, from <https://www.fsrh.org/standards-and-guidance/documents/cec-ceu-guidance-injectables-dec-2014/>

*FSRH Clinical Guideline: Progestogen-only Pills (March 2015, Amended April 2019)—Faculty of Sexual and Reproductive Healthcare.* (n.d.). Retrieved 28 August 2021, from <https://www.fsrh.org/standards-and-guidance/documents/cec-ceu-guidance-pop-mar-2015/>

*FSRH Clinical Guideline: Quick Starting Contraception (April 2017)—Faculty of Sexual and Reproductive Healthcare.* (n.d.). Retrieved 27 August 2021, from <https://www.fsrh.org/standards-and-guidance/documents/fsrh-clinical-guidance-quick-starting-contraception-april-2017/>

*FSRH emergency contraception guideline.* (n.d.). Guidelines. Retrieved 20 August 2021, from <https://www.guidelines.co.uk/womens-health/fsrh-emergency-contraception-guideline/453699.article>

*FSRH New Product Review: Kyleena® 19.5 mg Intrauterine Delivery System (January 2018, amended March 2019)—Faculty of Sexual and Reproductive Healthcare.* (n.d.). Retrieved 21 August 2021, from <https://www.fsrh.org/documents/fsrh-ceu-new-product-review-kyleena-january-2018/>



www.mecsaj.com

Multi-Knowledge Electronic Comprehensive Journal For  
Education And Science Publications ( MECSJ )

Issues (48) 2021

ISSN: 2616-9185

*FSRH, RCOG & RCM statement provision of postpartum contraception during*

*Covid-19—Faculty of Sexual and Reproductive Healthcare.* (n.d.). Retrieved 20 August 2021, from

<https://www.fsrh.org/documents/fsrh-rcog-rcm-statement-postpartum-contraception-covid19/>

Jain, R., & Muralidhar, S. (2011). Contraceptive Methods: Needs, Options and Utilization.

*Journal of Obstetrics and Gynaecology of India*, 61(6), 626.

<https://doi.org/10.1007/s13224-011-0107-7>

*Noristerat Injection Provides 8 Weeks of Pregnancy Protection.* (n.d.). Verywell Health.

Retrieved 29 August 2021, from

<https://www.verywellhealth.com/noristerat-injection-906854>

*Patient education: Birth control; which method is right for me? (Beyond the*

*Basics)—UpToDate.* (n.d.). Retrieved 27 August 2021, from

<https://www.uptodate.com/contents/birth-control-which-method-is-right-for-me-beyond-the-basics>

*The Different Types of Contraception -.* (n.d.). Retrieved 27 August 2021, from

<https://www.ericbentolilamd.com/blog/post/the-different-types-of-contraception.html>

*The GP Infant Feeding Network (UK).* (n.d.). The GP Infant Feeding Network (UK). Retrieved

15 August 2021, from <https://gpifn.org.uk/>

*UK medical eligibility criteria for contraceptive use.* (n.d.). Retrieved 27 August 2021, from

<https://www.independentnurse.co.uk/clinical-article/uk-medical-eligibility-criteria-for-contraceptive-use/144422/>

*UKMEC April 2016 (Amended September 2019)—Faculty of Sexual and Reproductive*

*Healthcare.* (n.d.). Retrieved 15 August 2021, from

<https://www.fsrh.org/standards-and-guidance/documents/ukmec-2016/>



www.mecsjs.com

Multi-Knowledge Electronic Comprehensive Journal For  
Education And Science Publications ( MECSJ )

Issues (48) 2021

**ISSN: 2616-9185**

*UKMEC April 2016 Summary Sheet (Amended September 2019)—Faculty of Sexual and Reproductive Healthcare.* (n.d.). Retrieved 28 August 2021, from <https://www.fsrh.org/standards-and-guidance/documents/ukmec-2016-summary-sheets/>

*Vaginal ring.* (2017, December 21). Nhs.Uk. <https://www.nhs.uk/conditions/contraception/vaginal-ring/>