Contraception in the Perimenopause

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BHR University Hospitals Trust
## Termination of Pregnancy

### Percentage of Conceptions Terminated:

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under 16:</td>
<td>52.5%</td>
</tr>
<tr>
<td>Under 18:</td>
<td>42.0%</td>
</tr>
<tr>
<td>Under 20:</td>
<td>37.8%</td>
</tr>
<tr>
<td>20 - 24:</td>
<td>27.9%</td>
</tr>
<tr>
<td>25 - 29:</td>
<td>17.1%</td>
</tr>
<tr>
<td>30 - 34:</td>
<td>14.9%</td>
</tr>
<tr>
<td>35 - 39:</td>
<td>21.0%</td>
</tr>
<tr>
<td>40 and over:</td>
<td>38.0%</td>
</tr>
</tbody>
</table>
In 2008, women aged 40 - 44 years old had the same rate of abortion as women under the age of 16.
Fertility: Pregnancy Rate using No Method in women still menstruating regularly;

Below 35 years: 80 – 90 %

At 40 years: 40 – 50 %

At 45 years: 10 – 20 %

At 50 years: 0 – 5 %
Definitions

*The Menopause.*
The last ever menstrual period.
Diagnosed retrospectively after 12 months amenorrhoea not due to another cause.

*The Climacteric ‘the change’*
That time around the menopause during which physiological changes take place and symptoms may be experienced.
(Highly variable; may last days or over 20 years. Average = 2 - 3 years)

*The Postmenopause.*
The time beginning one year after the final menstrual period.
Contraception & Fertility

- Contraception should be used until the postmenopause.
- The postmenopause is:
  - Amenorrhoea of 1 year duration since LMP (not due to another cause) in a women aged 50 or over.
  - Amenorrhoea of 2 years duration since LMP (not due to another cause) in a women aged under 50.
Methods of Contraception

- **Combined**
  - COC
  - Patch
  - Ring
- **POP**
  - Traditional
  - Cerazette
- **Injectable**
- **Injectable**
- **Injectable**
- **Subdermal Implant**
- **Copper IUD**
- **Barriers**
  - Condoms
    - Male
    - Female
  - Vaginal occlusive pessaries
    - Diaphragms
    - Caps
- **Natural**
  - LAM
  - Billings
  - Withdrawal
- **Sterilisation**
  - Female
  - Male
1. A condition for which there is no restriction for the use of the contraceptive method. 😊

2. A condition where the advantages of using the method generally outweigh the theoretical or proven risks.

   Slight relative CI 😊

3. A condition where the theoretical or proven risks usually outweigh the advantages of using the method.

   Strong relative CI 😞

4. A condition which represents an unacceptable health risk if the contraceptive method is used.

   Absolute CI
UK Medical Eligibility Criteria for Contraceptive use - UKMEC

Updated in November 2009

Changes to all methods.
# UKMEC & Age

<table>
<thead>
<tr>
<th>Age</th>
<th>CHC</th>
<th>POP</th>
<th>DMPA</th>
<th>Imp</th>
<th>CuIUD</th>
<th>LNG-IUD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Menarche to 18</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>18 to 20</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>18 to 40 (35 used)</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Over 40 (35 used)</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>45 - 50</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Over 50</td>
<td>3</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Nulliparity</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>
CC: Absolute Contraindications;  UKMEC 4

- Past or current venous or arterial thrombosis.
- Complicated valvular / congenital heart disease.
- Thrombophilia.
- Lupus anticoagulant / Antiphospholipid antibodies
- BP $\geq 160/95$
- BMI $\geq 34$
- Smoking $\geq 35$ years of age
- Impaired liver function (permanent).
- Porphyria.
- Migraine with aura.
- Diabetes with an ‘opathy’
- Major surgery with prolonged immobilisation
- Current breast cancer
- Any 2 or more irreversible UKMEC 2s
  - Over 35, Mother had VTE at age 48.
May be temporary and risks currently outweigh benefits:

- Immobilisation.
- VTE in 1st degree relative ≤ 45 years of age
- BP 140/90 - 159/94
- Adequately controlled hypertension
- BMI ≥ 35
- Smoking ≥ 35 years of age
- Known hyperlipidaemia (2 - 3)
- Past migraine with aura
- Using a drug which makes CC ineffective. eg, rifampicin
- Gall stones; either current or medically treated.
- Past breast cancer
- BRCA 1 & 2
- 2 or more potentially reversible UKMEC 2s
  - 22 years old, BMI 34 and smokes 10 / day.
  - Age 39 but BMI 32.

Or there is no safety data about use:

- Age 52.
- Age 37 gave up smoking within the last year.
CC: UKMEC 2

- **Age.**
  - 35 - 50

- **BP.**
  - BP raised above baseline $\geq 140/90$
  - History of raised BP in pregnancy

- **Migraine without aura.**
  - No neuro signs

- **Smoking.**

- **BMI.**
  - 30 – 34

- **Other risk factors for arterial disease.**
  - eg, diabetes
  - Known hyperlipidaemia (2 - 3)
  - Uncomplicated valvular / congenital heart disease

- **Other risk factors for venous disease.**
  - VTE in 1st degree relative $\geq 45$ years of age
  - Superficial thrombophlebitis

- Any 2 or more of the above; ☠☠ ☠☠ UKMEC 3 / 4
Reasons for choosing Progestogen-only Contraception

- H/O or at high risk of VTE.
- Women over 35 with other CVS risk factors.
  - Smoking
  - High BMI
  - Simple migraine
  - ↑ BP
  - Etc.
- Women under 35 with multiple UKMEC 2s.
- Migraine with aura
- Breast feeding
- Oestrogen-linked side-effects on the COC
- Choice

- ie multiple 2s are OK
Traditional POP

- **Main contraceptive effect**
  - Thickening of cervical mucus.

- **Secondary contraceptive effects:**
  - Ovulation inhibition. In about 15% users.
  - Inhospitable endometrium.

- **How do you take it?**
  - Daily; within 3 hours of a chosen time.

- **What about Forgotten Pills?**
  - Take when remember; unsafe 48 hours.

- **Efficacy:** 95 – 99.6%.
- **Not best choice for:**
  - Very young: not under 25s
Failure rates for POP by age of user

Vessey et al 1985

<table>
<thead>
<tr>
<th>Age</th>
<th>Failure rate (per 100 woman years)</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;20</td>
<td>4.5</td>
</tr>
<tr>
<td>25-29</td>
<td>4</td>
</tr>
<tr>
<td>30-34</td>
<td>3.5</td>
</tr>
<tr>
<td>35-39</td>
<td>3</td>
</tr>
<tr>
<td>40+</td>
<td>2.5</td>
</tr>
</tbody>
</table>
Cerazette

- **Main contraceptive effect:**
  - Ovulation inhibition 97% of cycles.
- **Secondary contraceptive effects:**
  - Thickening of cervical mucus.
  - In hospitable endometrium.
- **How do you take it?**
  - Daily; within 12 hours of a chosen time.
- **What about Forgotten Pills?**
  - Take when remember; unsafe 48 hours
- **Efficacy 99.6%**
- **Particularly appropriate for:**
  - Very young (under 25)
  - Need for ovarian suppression
POP / DMPA / Implanon UKMEC 4

- Current breast cancer
- Allergy to product
- Porphyria
### UKMEC 3

<table>
<thead>
<tr>
<th>Condition</th>
<th>POP</th>
<th>DMPA</th>
<th>Implanon</th>
</tr>
</thead>
<tbody>
<tr>
<td>Past breast cancer</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Severe hepatic disease with abnormal LFTs.</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Hepatic enzyme-inducing drugs.</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Unexplained vaginal bleeding</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Multiple risk factors for cardiovascular disease (not just 2, several)</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current ischaemic heart disease or Stroke</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diabetes with an ‘opathy’ / vascular disease</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Symptomatic vascular disease</td>
<td></td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>

*Remember UKMEC 3 means seek specialist advice*
DMPA: NICE 2005

- DMPA use is associated with a small loss of bone mineral density, which is largely recovered when DMPA is discontinued.
- There is no evidence that DMPA use increases the risk of fracture; osteopaenia or related fractures have never been reported.
- All BMD decreases were within 1 standard deviation of the mean of non users (within a Z score of 1, which does not indicate osteopaenia or osteoporosis).
- All women should be advised that the use of DMPA is associated with a small loss of bone mineral density which is mostly recovered when the method is stopped.
- All women who wish to continue DMPA beyond 2 years should be appropriately informed and supported in their choice.
- Women with risk factors for osteoporosis should consider other methods.
DMPA: NICE 2005

- In the absence of conclusive data; the known benefits of DMPA outweigh any theoretical risks.
- Adolescents may choose to use DMPA after considering all their other options.
- Women may choose to continue to use DMPA until menopause after considering all their other options.
- Women should be appropriately informed and supported in their choice.

WHO 2
When to stop & what to do next

- CHC to POP at 50 - 51
- DMPA to POP at 50 – 51
- POP until 1 year after LMP or ?55 if amenorrhoic
- Implanon as above
- IUD and barriers should be obvious
- IUS remove 55 – 60

- Blood tests not very helpful – not a test for infertility, only gives indication of reducing fertility.
- If stopping a Pill to ‘wait & see’, use condoms until 1 year’s amenorrhoea.
Contraceptive Myths

- Contraception makes you fat
- Contraception doesn’t work if you are already fat
- Contraception makes you infertile
- You can’t use the pill for more than 2/5/10 years
- You can’t use the pill if you are over 30/35/40/45 etc
- You can’t use the injection in adolescents or for more than 2 years
- Sterilisation is the safest form of contraception
- Condoms always break and have holes in put there by the manufacturers
- You can only use the after-morning pill once

NEW FOR 2010
- Your Mirena coil needs changing when you change sexual partner
Weight

- Combined contraception has restrictions related to BMI
- Progestogen – only contraception has no weight or BMI-related restrictions.
- It used to be thought that the POP needed to be doubled if over 70Kg but there is no evidence for this.
- This only applied to ‘traditional’ POPs, not Cerazette which works in a different way.
- Implanon does not need to be changed before 3 years in any woman of any weight.
Weight

- Excess weight is caused by excess calorie intake
- There are no calories in any form of contraception.
- DMPA can increase appetite but the more overweight the woman, the greater the appetite increase seems to be.
- Some women have an increase in appetite on any hormonal method.
- Some women feel bloated which is confused with increased weight.
- Studies have regularly shown weight change on any hormonal method (other than DMPA) is the same as weight change using no method / condoms.
- Weigh everyone before starting any method and at every review.
Shelf-life

- They are tested commercially by filling them with 2 Litres of water.
  - They don’t leak
  - They don’t burst.
- We occasionally rescue children from suffocation when they have put them onto their heads in sex-education lessons.
- Incorrect use causes bursting
  - Incorrect application
  - Lubrication with the wrong substances, eg baby oil, lipstick.
- Levonelle 1500 may be given up to 120 hours after SI – efficacy fades over time
- Levonelle 1500 may be given multiple occasions throughout the cycle
- off-licence indications supported by FSRH & BNF

Should we give condom users advance supplies of Levonelle?
ellaOne: Emergency Contraception

- Synthetic progesterone receptor modulator.
- Partial agonist % antagonist.
- Prevents progesterone occupying its receptor.
- Good efficacy up to 120 hours.
- Only once per cycle
- Hormonal contraception will not be effective afterwards for 9-14 days.
- No guidance with enzyme-inducing drugs.
- Expensive – need to treat 120 women to prevent 1 pregnancy.
The new Ovès contraceptive cap

Femcap
Vaginal Occlusive Pessaries

- 92-96% effective if used correctly. Silicone caps are less effective.
- Between 4 to 8 women in 100 per year will become pregnant.
- Poor vaginal/perineal muscle reduces use / efficacy.
- Less effective than COC or IUD/IUS.
- Increased risk of urinary tract symptoms and infections.
- Perceived as “messy” due to spermicide use.
- Small minority of women develop vaginal irritation or allergy to the latex or more commonly the spermicide.

- Useful method for older women with reduced fertility who prefer or cannot use another method.
'Femshield' - the world's first female 'condom' developed by Medicon Limited.
For whom not suitable?

- Have cycle shorter than 23 days
- Have cycle longer than 35 days
- Using hormonal treatments i.e. COC/ HRT
- Medication affecting menstrual cycle
- Experienced menopausal symptoms
- Liver or kidney disease
- Diagnosed Polycystic Ovarian Syndrome
- Breast feeding
- Taking Tetracycline
IUDs

IUS (‘Mirena’) 375
‘Nova’ T 380
CuT380 A
‘Multiload’
This week

- I have been asked for:
  - A spiral
  - A cord
  - A meercap
IUDs Efficacy

- **CuT380A = WHO ‘gold-standard’**
  - 1.4 pregnancies / 100 women at 5 years use.
  - 2.2 pregnancies / 100 women at 12 years use.
  - No pregnancies beyond the 8th year.
  
  **Efficacy = 99.7 %**

- **Nova T 380**
  - 2.0 pregnancies / 100 women at 5 years.
  
  **Efficacy = 99.6%**

- **Multiload 375**
  - 2.9 pregnancies / 100 women years at 5 years.
  
  **Efficacy = 99.4%**

- **IUS**
  
  **Efficacy = 99.7 %**
Myths and Legends

- ‘coils’ cause infection
- ‘coils’ cause ectopic pregnancies
- ‘coils’ make you fat
- ‘coils’ work by causing an abortion
- They can only be fitted during a period
- They can only be removed during a period
- You can’t have one if you’ve never had a baby
- ‘coils’ can disappear inside you
Myth No 1

- ‘Coils’ cause infection
  - Infection causes infection
  - Bugs already at the cervix can be pushed into the cavity with the device
Screening for pre-existing infection

- Who do you screen?
  - Offer to all potential users

- What for?
  - Chlamydia
  - Dual testing for Chlamydia and Gonorrhoea if available to you (one endocervical swab)
  - No evidence to justify screening for β haemolytic strep

- Target certain groups; eg.
  - All emergency fittings
  - History of STI / PID / ectopic
  - Under 25s
  - Multiple or casual partners – ask suitable questions!

- Consider giving antibiotic prophylaxis only in emergency fittings.
- No evidence to suggest antibiotic prophylaxis for all fittings is justified
Myth No 2

- ‘Coils’ cause ectopic pregnancies
  - No: IUDs protect against them.
  - IUDs reduce the risk of all types of pregnancy
  - IUDs do not prevent ectopics as well as they protect against uterine pregnancy.
Myth No 3

- ‘Coils’ can only be fitted / removed during a period.
- IUDs may be fitted anytime provided there is no risk she could be pregnant.
  - No sex since LMP
  - Using a reliable method of contraception since LMP
IUD Removal

- Anytime
  - Pregnancy possible if SI in the past 7 days so advise condoms / abstain prior to removal.
  - Same risk with changing devices (what if you can’t fit the replacement?).
  - The 7-day rule.
Myth No 4

- ‘Coils’ work by causing an abortion
  - No, that is illegal.
  - Copper IUDs
    - Copper is toxic to sperm, ova & blastocysts
    - The device has a foreign body effect
  - Medicated IUDs
    - Cause atrophic change in the endometrium
    - The device has a foreign body effect
Myth No 5

- ‘Coils’ can get lost inside you
  - Perforation
    - Should be rare; 1:1000 or less
    - Most likely at insertion or soon after if myometrium is ‘nicked’
  - Missing threads — often in canal, feel with fine forceps
### Intrauterine Contraception UKMEC 4

<table>
<thead>
<tr>
<th>Condition</th>
<th>IUS</th>
<th>IUD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trophoblastic disease until $\beta$hCG clear</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Pregnancy / puerperal sepsis/ septic abortion</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Current PID / chlamydia / gonorrhoea infection / pelvic TB</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Unexplained genital tract bleeding (before evaluation)</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Insertion with known Cervical / endometrial cancer</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Breast cancer</td>
<td>4</td>
<td>1</td>
</tr>
</tbody>
</table>
## Intrauterine Contraception UKMEC 3

<table>
<thead>
<tr>
<th>Condition</th>
<th>IUS</th>
<th>IUD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Severe hepatic disease / tumour</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Copper allergy; Wilson’s disease</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Postpartum below 4 weeks</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Distorted uterine cavity</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>
Myth No 6

➢ ‘Coils’ can’t be used if you’ve never had a baby.
## Intrauterine Contraception UKMEC 1 - 2

<table>
<thead>
<tr>
<th>Condition</th>
<th>IUS</th>
<th>IUD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Past ectopic pregnancy</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Obesity / smoking / hypertension</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td><strong>Nulliparity</strong></td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>CIN</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Valvular and Congenital heart disease uncomplicated</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>History of SABE, AF, pulmonary hypertension</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Antibiotic prophylaxis no longer required</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anything else you can think of</td>
<td>1-2</td>
<td>1-2</td>
</tr>
</tbody>
</table>
Myth No 7

- ‘Coils’ make you fat
  - Maybe not using one.............
## IUDs & IUSs; Duration of use

<table>
<thead>
<tr>
<th>Device Type</th>
<th>Duration of Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cu T 380 A</td>
<td>10 years</td>
</tr>
<tr>
<td>Any other copper IUD</td>
<td>5 years</td>
</tr>
<tr>
<td>Any Cu device fitted at age 40 or &gt;</td>
<td>Menopause + 1 year</td>
</tr>
<tr>
<td>IUS</td>
<td>5 years</td>
</tr>
<tr>
<td>IUS at 45 +</td>
<td>Leave it alone!</td>
</tr>
<tr>
<td>IUS for menorrhagia only</td>
<td>As long as it is effective</td>
</tr>
<tr>
<td>IUS for HRT</td>
<td>4 years (5 is OK)</td>
</tr>
</tbody>
</table>

Removal all devices at around age of 55; certainly by 60
Emergency IUD

- Copper IUD best method of emergency contraception.
- Any copper IUD
- Never IUS
L1500

- Can use up to 120 hours off licence
- Needs to be doubled if on enzyme-inducing drugs.
- Can be given many times in one cycle.
- Best given even if referring on for IUD insertion (in case cannot fit device etc)
HRT

- HRT provides no contraception
- IUS as the progestogen part of HRT does
  - Only licenced for 4 years as HRT but 5 is known to be OK.
Case Study

A woman of 46 attends for advice about her Cu IUD which is now 10 years old. She has no problems with it.

In the past 2 years, she has had a triple coronary artery bypass, her severe disease due to profound hyperlipidaemia only diagnosed following her several MIs.

She is dyspnoeic at rest, on Warfarin, statins etc etc.

Still sexually active with regular menses.

What should she do about her IUD?

Both her children were subsequently found to have the same hyperlipidaemia and are on treatment.
Another Case Study

The next patient is the 23 year old daughter of the previous patient who is on Microgynon 30 and has been since aged 17.

She is also now on statins.

Nulliparous, normotensive, BMI 24.

Father had a DVT aged 30 and has been on anticoagulants since ? Thrombophilia.
Case Study 3

A 47 year-old lady in a new relationship. Her ex husband had had a vasectomy after the birth of their children and she has never used a method of contraception.

BP 120/70, BMI 21, non-smoker, no drugs, well.
## Methods of Contraception

- **Combined**
  - COC 90 – 99.8%
  - Patch
  - Ring
- **POP** 90 – 99.8%
  - Traditional
  - Cerazette
- **Injectable** 99.8%
- **LNG IUS** 99.7%
- **Subdermal Implant** 99.93%
- **Copper IUD** 99.7%
- **Barriers** 80 – 97%
  - **Condoms**
    - Male
    - Female
  - **Vaginal occlusive pessaries**
    - Diaphragms
    - Caps
- **Natural**
  - **LAM** 98%
  - **Billings** 80 – 95%
  - **Withdrawal** 80%
- **Sterilisation**
  - **Female** 99.5
  - **Male** 99.95%