Update on Contraception

Maryam Nasri
9/9/2022
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<td>AOB</td>
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<td>Q and A s</td>
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FSRH GL Progestogen only pills
Types of POPs in UK traditional and new

POPs currently available in the UK contain
• NET 350 µg (Micronor®, Noriday®),
• LNG 30 µg (Norgeston®)

• DSG 75 µg (Cerazette® and other branded generic products): OTC Hana
• Drosperinone
DSG pills may have potential benefits over traditional POPs

- Ovulation is inhibited in up to 97% of cycles
- 12-hour window for missed pills.
- Management of dysmenorrhoea
- Bleeding patterns
In the studies, the DRSP-only pill presents a similar Pearl Index to that of common combined hormonal contraceptives.

Bleeding pattern is unpredictable, similar to DSG but may have less prolonged bleeding which could increase its acceptability.

4 mg non-micronised drospirenone

A potent progestin analogue of spironolactone, with antiandrogenic and antimineralocorticoid properties.

Maintains plasma E$_2$ levels comparable to those of the early follicular phase of the menstrual cycle.

Has a half-life of 30–34 h.

And is used in a 24/4 day intake regimen.
Advantages:

- Contraceptive effectiveness comparable to that of COCs.
- Low to very low cardiovascular risk, i.e. venous and arterial thromboembolic events that are classically associated with EE use.
- Advantage of antimineralocorticoid and antiandrogenic effects.
- Adherence and acceptability
- Has a 24 h missed pill safety window
Initiation of DRSP

- Start on day 1 of natural menstrual cycle
- Day 1 after abortion
- Or by day 21 after childbirth
- Any other time: additional contraceptive advice for 7 days
• UKMEC 3 and 4
• Breast cancer
• Arterial thromboembolism that occurred during the use of a POP
• Decompensated cirrhosis and hepatocellular tumors

• New:
  • Manufacturer :DRSP Acute renal failure and severe renal insufficiency
GDG added cautions for DRSP

01
Avoid: hyperkalemia and untreated hypoaldosteronism and users of potassium sparing diuretics, aldosterone antagonists and potassium supplements

02
Caution: mild/moderate renal impairment or treated hypoaldosteronism

03
Measure: those with significant risk factors for CKD esp over 50: BP and us and Es
And one month after initiation
Efficacy of POPs

- Risk of pregnancy 9% vs 1%
- Affected by Vomiting, Bariatric surgery, drug interactions
- Not affected by BMI
## Vomiting

Table 2: Vomiting after the progestogen-only pill is taken

<table>
<thead>
<tr>
<th>Type of POP</th>
<th>Manufacturer-recommended time after pill-taking until unaffected by vomiting</th>
</tr>
</thead>
<tbody>
<tr>
<td>DRSP POP</td>
<td>3–4 hours</td>
</tr>
<tr>
<td>LNG traditional POP</td>
<td>2 hours</td>
</tr>
<tr>
<td>NET traditional POP</td>
<td>Not stated. GDG suggest 2 hours as above</td>
</tr>
<tr>
<td>DSG POP</td>
<td>3–4 hours</td>
</tr>
</tbody>
</table>

DRSP, drospirenone; DSG, desogestrel; GDG, guideline development group; LNG, levonorgestrel; NET, norethisterone; POP, progestogen-only pill.
Practical points

• POP users can be given a year supply
• Can be assessed annually
• Can use self guided check lists
• Can continue till 55
Drug interactions with hormonal contraception, May 2022, FSRH
Evidence of interactions for contraceptive methods

- Often no direct study evidence
- Err on side of caution – e.g. teratogenic medication
Good practice points

Always ask about use of
• prescription
• non prescription
• recreational drug use
• use of herbal preparations and
• dietary supplements
Good practice points
Use regularly updated resources

BNF app

Liverpool Drug Interaction Checker
Pharmacokinetic interactions reducing Contraceptive efficacy

Absorption

Bioavailability

Distribution

Metabolism

Excretion
Pharmacokinetic interactions increasing exposure to contraceptive hormones
Pharmacokinetic interactions of contraceptive hormones that could affect exposure to other drugs being taken

• Lamotrigine!
Pharmacodynamics

Synergy - DRSP and potassium sparing drugs

Antagonism – UPA and POP
Broad spectrum antibiotics

• If an AB is not an enzyme inducer
• If it does not cause D and V

• NO ADDITIONAL CONTRACEPTIVE PRECAUTION IS REQUIRED
EID

- Hepatic clearance of contraceptive hormones is increased during use of an EID and for some time after.
- EID can reduce the contraceptive efficacy of all CHC all POP Implant and EC.
EID and contraception

<table>
<thead>
<tr>
<th>Method</th>
<th>Contraceptive effectiveness could be reduced and use not advised</th>
<th>No expected effect on contraceptive effectiveness</th>
<th>Effectiveness could be reduced</th>
</tr>
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<tbody>
<tr>
<td>CHC</td>
<td>DMPA</td>
<td>LNG-EC</td>
<td></td>
</tr>
<tr>
<td>POP</td>
<td>LNG-IUS</td>
<td>UPA-EC</td>
<td></td>
</tr>
<tr>
<td>IMP</td>
<td>Cu-IUD</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**CHC : COC, Patch and Ring**

- **Contraceptive effectiveness could be reduced**
- **Always advise use alternative**
- **In exceptional circumstances consider use of two EE monophasic combined OCs together containing a total of 50mcg EE in a continuous regimen or 4 days PFI and condoms**
- **Effectiveness not guaranteed**
- **Could increase risk of VTE**
- **Two rings or two patches not recommended**
Contraceptive effectiveness could be reduced
Always advise use alternative
Use not advised during use of EID and 28 days afterwards
No option of two POPs
Implant

- Contraceptive effectiveness could be reduced
- Always advise use alternative
- Use not advised during use of EID and 28 days afterwards
- Use of two together not advised
LNG-EC and UPA-EC

Effectiveness could be reduced

Offer PC IUCD

If not suitable offer double dose LNG-EC (96 hours)

If not suitable offer one dose of UPA-EC; double dose not recommended

Effectiveness of PO EC not known
Contraception and Diarrhea and Vomiting

CHC and POP

- Follow missed pill rules if vomiting occurs within few hours of pill taking
- Or severe diarrhoea persists for more than 24 hours
- Consider non oral contraception
- Use condoms
Contraception and Diarrhea and Vomiting

IMP DMPA LNG –IUS cu-IUD
No interaction, no need for additional precautions
POEC:
Offer IUCD
Repeat dose
Effects of HC on Lamotrigine-Estrogen in CHC reduces levels of Lamotrigine, DSG may increase exposure of Lamotrigine

Effect of Lamotrigine on contraception - L reduces exposure to progestogens that may reduce effectiveness

Effectiveness of CHC, all POP and IMP could be reduced

DMPA and LNG-IUS and Cu-IUCD are not affected
Lamotrigine – good practice points

• Always discuss with the neurologist/psychiatrist/GP
• Always advise additional condoms
• If use of CHC is unavoidable:
  • Lamotrigine dose may have be increased
  • Serum lamotrigine monitored
  • Use Continuous combined with no PFI to avoid risk of toxicity in PFI

• POP:
  • Beware of signs of toxicity: dizziness, ataxia, and diplopia
Use of UPA and other hormonal contraception

**UPA, IUCD**
- UPA and IUCD – no interaction
- UPA and UPA – no interaction so can be used more than once in a cycle

**IUS, CHC, POP, IMP, DMPA, LNG-EC**
- Hormonal contraception should not be QS until 5 days after UPA-EC administration
- Condoms should be used until the method becomes effective
- UPA-EC could be less effective if a progestogen has been used in the previous 7 days.
- In addition for IUS: pregnancy should be excluded.
Teratogenic drugs

- Can be EID or nEID
- Pregnancy plan should be in place
- Refer to UK teratology information service
Some other important interactions and good practice points

- Griseofulvin is not an EID but is a potential teratogen – treat as EID and teratogen
- Topiramate is a teratogen but in higher doses – Treat as teratogen
- Hypothyroidism and HRT/CHC - consider checking TFT 6 weeks after starting CHC
- Gastric PH and UPA - offer PCIUCD, or Levonelle (96 hours), UPA effect may be reduced
Pain relief in IUD insertions

- Xylocaine spray
- Evidence
- Cost for spray and for nozzles
- Infection control
- Practical tips
When is contraception no longer needed?

- At 50: DMPA and CHC – switch to other methods
- At 55: all methods are stopped
- IUDs should be removed and can not stay indefinitely
- IUCDs (≥ 300mmCu) inserted after 40 can remain till 55
- Mirena inserted after 45 can remain in situ till 55 unless for HRT or woman’s pattern of bleeding changes
<table>
<thead>
<tr>
<th>Contraceptive method</th>
<th>Age 40–50 years</th>
<th>Age &gt;50 years</th>
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<tbody>
<tr>
<td>Non-hormonal</td>
<td>Stop contraception after 2 years of amenorrhoea</td>
<td>Stop contraception after 1 year of amenorrhoea.</td>
</tr>
<tr>
<td>Combined hormonal contraception</td>
<td>Can be continued</td>
<td>Stop at age 50 and switch to a non-hormonal method or IMP/POP/LNG-IUS, then follow appropriate advice.</td>
</tr>
<tr>
<td>Progestogen-only injectable</td>
<td>Can be continued</td>
<td>Women ≥50 should be counselled regarding switching to alternative methods, then follow appropriate advice.</td>
</tr>
<tr>
<td>Progestogen-only implant (IMP)</td>
<td>Can be continued to age 50 and beyond</td>
<td>Stop at age 55 when natural loss of fertility can be assumed for most women.</td>
</tr>
<tr>
<td>Progestogen-only pill (POP)</td>
<td></td>
<td>◁ If a woman over 50 with amenorrhoea wishes to stop before age 55, FSH level can be checked.</td>
</tr>
<tr>
<td>Levonorgestrel intrauterine system (LNG-IUS)</td>
<td></td>
<td>◁ If FSH level is &gt;30 IU/L the IMP/POP/LNG-IUS can be discontinued after 1 more year.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>◁ If FSH level is in premenopausal range then method should be continued and FSH level checked again 1 year later.</td>
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<tr>
<td></td>
<td></td>
<td>A Mirena® LNG-IUS inserted ≥45 can remain in situ until age 55 if used for contraception or heavy menstrual bleeding.</td>
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</table>

FSH, follicle-stimulating hormone; IU, international unit.
After 45 DMPA moves from category 1 of UK MEC to category 2

Review every 2 years

If any additional risk factors: smoking, inactivity, family history, vitamin D deficiency advise to consider alternative methods

Do not offer routine bone density scan or monitoring of serum lipids or use of oestrogen

Women over 50 should be counselled on alternative methods if they do not wish to stop then consideration should be given to continuation providing the benefits and risks are understood and regularly reviewed at each visit
• https://medlineplus.gov/druginfo/meds/a621011.html
• Drospirenone 4 mg–only pill (DOP) in 24+4 regimen: a new option for oral contraception
• https://pubmed.ncbi.nlm.nih.gov/32538188/
• https://www.tandfonline.com/doi/full/10.1080/13625187.2020.1743828
• Oestrogen-free oral contraception with a 4 mg drospirenone-only pill: new data and a review of the literature
THANK YOU