Contraception Special Interest Group:

New Developments in Contraception

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Intrauterine Contraception

<table>
<thead>
<tr>
<th></th>
<th>Mirena</th>
<th>Skyla</th>
<th>Liletta</th>
<th>Paraguard</th>
<th>LNG 19.5</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>5 years 52mg levonorgestrol</td>
<td>3 years 13.5mg levonogesterol</td>
<td>3 years 52mg levonogesterol Low cost</td>
<td>10 years Copper</td>
<td>5 years 19.5/20mg levonogesterol Under development</td>
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Injectables

- **Cyclofem (Mesigyna)** is a monthly injectable contraceptive containing 25 mg of MPA and 5 mg of estradiol cypionate (E2C), a long acting ester of estradiol
- Menses: Regular, Irregular cycles (especially in the beginning), or Amenorrhea
- Phases 1 and 2 in USA
- Available several countries
Low Dose Transdermal Patch

- Efficacy comparable.
- The bleeding pattern and cycle control of FC-Patch Low and EVRA are similar.
- More drug-related skin reactions were associated with FC-Patch Low than for EVRA.
- Drop put rate same.
- The lower EE dose of FC-Patch Low had the advantage of fewer EE-related events (e.g. breast pain) which more frequently seen for EVRA.
- The AE profile was otherwise similar between the treatment groups.
- Approved in European Union for manufacture and distribution
- Phase 3 of US Trials complete, results not yet published
Patch Comparisons

- Ortho Evra (USA)-dsc
  - 6mg Norelgestromin
  - 0.75mg Ethinyl estradiol

- Xulane (USA)
  - 4.86mg Norelgestromin
  - 0.53mg Ethinyl estradiol

- Evra (Canada)
  - 6mg Norelgestromin
  - 0.6mg Ethinyl estradiol

- FC Patch Low BAY86-5016 (EU)
  - 2.1mg Gestodene
  - 0.55mg Ethinyl estradiol
  - In the gestodene combination, the progestogen's increased biologic activity allows further reduction of total steroid dose.
  - More effect with higher BMI?

Vaginal Rings

- Nestorone® (NES) and ethinyl estradiol (EE) that is reusable for 1-year (13 cycles) is under development.
- It is left in place for 21 days and removed for seven days, for up to 13 cycles.
- Does not require refrigeration.
- Inserted by the woman herself.
- Long acting reversible, self-placed.

- Phase 3 USA
# Future New Method: Many Pills are in Development

<table>
<thead>
<tr>
<th><strong>Teva</strong></th>
<th><strong>Bayer</strong></th>
<th><strong>Merck</strong></th>
<th><strong>BioSante and Pantarhei Bioscience</strong></th>
</tr>
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<tbody>
<tr>
<td>• OC continuous regimen of LNG 0.15 mg / EE 20 mcg x42d, 25 mcg x21d, 30 mcg x21d, EE mcg x 7d</td>
<td>• Combined OC extended regimens w/ drospirenone 3 mg / EE 20 mcg</td>
<td>• OC containing nomegestrol acetate 2.5 mg, 17β-estradiol 1.5 mg</td>
<td>• OC with estrogen, progestin, and androgen</td>
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</table>
SILCS Diaphragm

- One size fits all, does not require health care provider to fit
- Prescription
- Use with contraceptive gel
- Remain in 6 hours after intercourse
- $75-$90
- Available 20 countries and USA
PATH Condom

- Replaced inner ring with four small dots of soft, absorbent foam which adheres gently to the interior of the vagina, holding the condom securely in place during use and releasing easily from the vaginal walls on removal.
- To make insertion easier, we added a rounded cap to the end of the condom, which gathers the condom pouch together until after insertion.
- Once the condom is inserted, the tip dissolves in less than a minute for most women.
- In development
References

References