Workshop Long-cycle Contraception in Adolescence

FIAPAC Berlin Oktober 2008

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Long-Cycle in Adolescence

• Extended Cycle - WHY
• Definition, Preparations
• Attitude of adolescents to contraception
• Which adolescents might profit from using the extended cycle?
  Are adherence and Pearl-Index improved?
  Are there medical advantages in adolescence?
• Are there disadvantages / Safety? /What are the concerns today?

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### Extended-cycle - Why?

<table>
<thead>
<tr>
<th></th>
<th>15-19</th>
<th>25-34</th>
<th>45-49</th>
<th>52-57</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 monthly</td>
<td>26</td>
<td>35</td>
<td>26</td>
<td>12</td>
</tr>
<tr>
<td>never</td>
<td>41</td>
<td>37</td>
<td>46</td>
<td>66</td>
</tr>
<tr>
<td>Less problems</td>
<td>71</td>
<td>70</td>
<td>57</td>
<td>49</td>
</tr>
<tr>
<td>Would you like to use hormonal contraception over a longer period of time to avoid menstruation?</td>
<td>8</td>
<td>8</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>Would you like to use sometime hormonal contraception to suppress menstruation?</td>
<td>54</td>
<td>32</td>
<td>35</td>
<td></td>
</tr>
</tbody>
</table>

**Questionnaire for 1195 German women 2000;**

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Long-Cycle in Adolescence

Figure 1. Reasons for prescribing extended cycles.
Definition, Preparations
<table>
<thead>
<tr>
<th>Author</th>
<th>Pill Preparation</th>
<th>Number of women, duration of study</th>
<th>Duration of extended cycle</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cachrimanidou 1993</td>
<td>30 EE/ 150 Desogestrel</td>
<td>N=284 12 Zyklen</td>
<td>63 Tage</td>
</tr>
<tr>
<td>Andersson 2003</td>
<td>30 EE/ 150LNG</td>
<td>N=682 13 Zyklen</td>
<td>84 Tage</td>
</tr>
<tr>
<td>Miller 2001</td>
<td>30 EE/ 300 Norgestrel</td>
<td>N=90 12 Zyklen</td>
<td>42 Tage</td>
</tr>
<tr>
<td>Miller 2003</td>
<td>20 EE/ 100 LNG</td>
<td>N=60 12 Zyklen</td>
<td>336 Tage</td>
</tr>
<tr>
<td>Kwiecien 2003</td>
<td>20 EE/ 100 LNG</td>
<td>N=32 6 Zyklen</td>
<td>168 Tage</td>
</tr>
<tr>
<td>Miller 2005 ACOG 5/2005</td>
<td>Nuvaring</td>
<td>N=429 12 Zyklen 4 Gruppen</td>
<td>42,84,357 Tage</td>
</tr>
<tr>
<td>Wiegratz 2004 *</td>
<td>30 EE/ 2mg Dienogest</td>
<td>N=30</td>
<td>189 Tage* 50% no bleeding</td>
</tr>
<tr>
<td>Foidart et al.</td>
<td>30 EE/ 3mg Drospirenon</td>
<td>N= 177</td>
<td>126</td>
</tr>
</tbody>
</table>

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Concerns of adolescents using hormonal contraception
Concern and wishes:

Menstruation once a month

Contraception should be as natural as possible

Spotting, unscheduled bleeding, amenorrhoea causes fear from pregnancy, confusion and fear from later infertility.

N= 73  13-17 Jahre Interview

Clark Contraception 74 (2006)

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Clark et al. 2006

The comments from the adolescent girls indicated that it was very important to the young women to have regular monthly menstrual cycles. Disruption of this cyclicity was not welcomed specially when it involved amenorrhoea.

Gold und Coupey 1998

College students: 74% stopped Contraception if unscheduled bleeding occurred, 65% stopped, when amenorrhoea occurred.
## Acceptance of irregular Bleeding

*Oddens et al. 1999*

<table>
<thead>
<tr>
<th>Frequency</th>
<th>15-19</th>
<th>25-34</th>
<th>45-49</th>
<th>52-57</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 x monthly</td>
<td>26</td>
<td>35</td>
<td>26</td>
<td>12</td>
</tr>
<tr>
<td>never</td>
<td>41</td>
<td>37</td>
<td>46</td>
<td>66</td>
</tr>
<tr>
<td>Negative*</td>
<td>96</td>
<td>96</td>
<td>94</td>
<td></td>
</tr>
</tbody>
</table>

*Oddens et al. 1999*

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Possible benefits of the Long-cycle for adolescents
Pearl-Index and Compliance

Is the extended cycle more safe?
• PI 0.55 (vs 1.45) 30µg EE/150µg LNG 84 days vs. 21 days
  Seasonal (noncompliant cycles were excluded)

• PI 1.27 30µg EE/150µg LNG 84 Tage + 7 Tage EE 10 µg
  Seasonique (noncompliant cycles included)

• PI 1.6 20µg EE/90µg LNG 12 months
  Lybrel (noncompliant cycles included)

• Cochrane library 2006 no difference between 21 day and extended regimes

F.D.Anderson Contraception 2003 and 2006
D.F.Archer Contraception 2006, Cochrane 2006

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Medical advantages
Possible Benefits of the extended-cycle

- Dysmenorrho: *no evidence*
- PMS: *no evidence*
- PMDD: *no evidence*
- Endometriose: *no evidence*
- Headache in the pillfree period *contradictory resultats*
Disadvantages / Side effects/ Safety 😞
Adverse events occurring in > 5% of all treated patients

<table>
<thead>
<tr>
<th>(%)</th>
<th>Seasonale</th>
<th>Mercilon</th>
<th>Mirelle</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sinusitis</td>
<td>19.1</td>
<td>22</td>
<td>19</td>
</tr>
<tr>
<td>Headache</td>
<td>21.0!!</td>
<td>31</td>
<td>30</td>
</tr>
<tr>
<td>Dysmenorrhoea</td>
<td>9.5</td>
<td>8</td>
<td>5</td>
</tr>
<tr>
<td>Nausea</td>
<td>6.4</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>Abdominal pain</td>
<td>5.3</td>
<td>11</td>
<td>10</td>
</tr>
</tbody>
</table>

*21 Day-Regime 28% n.s.

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Anderson et al.: AJOG 2006; Eur J Contracept Reprod Health Care 1999
Discontinuation for adverse events

<table>
<thead>
<tr>
<th>SEASONALE</th>
<th>EVRA</th>
<th>OC 30µg</th>
</tr>
</thead>
<tbody>
<tr>
<td>17%</td>
<td>11-13%</td>
<td>4.5 – 10%</td>
</tr>
</tbody>
</table>


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Adverse events

More discontinuation because of breakthrough bleeding and amenorrhea. No further differences in side effects.

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Possible Risks of the long-cycle in comparison to the 21 day pill cycle

- Cardiovascular risk: idem
- Thrombosis: idem ↓
- Endometrial Cancer: idem ↓
- Breast Cancer: (↑)
- Return of fertility: (↑)

Amenorrhoea – a problem?

There are no longterm studies on the safety of extended cycles. Therefore at the moment the extended cycle should be indicated only in special situations.

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Tolerance

• Discontinuation depends very much on the duration of the long-cycle 40% vs. 28% in the 21-day regimen in healthy women without gynaecologic problems. *

• 50-55% discontinuation in women with cyclic problems like headache, depression. **

• Nuvaring: 21 days 23%
  42 days 28%
  364 days 41%

*Andersson et al, ** Sulak et al

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Hormonal suppression of menstruation in adolescence – Why not?

- The acceptance of physical maturation is a sensible process during pubertal development. One part of this process is the adjustment to the uncomfortable menstrual bleeding.
- Advertising and peer groups put pressure on girls to use tampons and to be available for sport, swimming and other activities, although if they do not like to during monthly bleeding.
- Is it in this context reasonable to exacerbate negative feelings and external pressure by prescribing bleedingfree long-cycle contraception??

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Conclusion

**Compare with other methods and weigh carefully benefits and risks**

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