Learning Objectives

At the end of this presentation, the participant will be able to:

- List the tests needed before initiating various methods.
- Describe how to control bleeding with progestin methods.
- Explain what methods are safe after delivery.

EW is a 22-year-old Go woman who presents with a history of 3 lifetime sexual partners with only one steady partner for last 7 months. Her last chlamydia test was done 8 months ago and was negative. Her LMP was 8 days ago. She claims she used condoms with each act of intercourse this month. She is pretty sure she does not want pregnancy for at least 2 years.

- For what methods is she a candidate?
- Which methods could you start today?

Timing of Initiation

- Implant
  - Any time it is reasonably certain she is not pregnant
- Cu-IUD
  - Any time it is reasonably certain she is not pregnant
- DMPA
  - Any time it is reasonably certain she is not pregnant

“Reasonably Certain That a Woman is Not Pregnant”

- No signs of symptoms of pregnancy AND
- Any of the following
  - ≤ 7 days after start of normal menses, SAB, TAB
  - ≤ 6 months postpartum and breastfeeding (≥ 85%) and amenorrhea
  - No coitus since LMP
  - Correct and consistent use of reliable method
What’s the Harm of . . .

- Starting any CHC if a patient is pregnant or is about to become pregnant?
- Starting DMPA or POPs, or implants if a patient is pregnant or is about to become pregnant?
- Placing an IUD if a patient is pregnant?

What Tests Would You Have to Do If . . .

- She selects an implant?
- She selects an IUD?
- She selects DMPA?
- She selects COCs?

What Tests are Needed?

<table>
<thead>
<tr>
<th>Test</th>
<th>Procedure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pulse</td>
<td>External genitalia</td>
</tr>
<tr>
<td>BP</td>
<td>Speculum exam</td>
</tr>
<tr>
<td>Weight</td>
<td>Bimanual exam</td>
</tr>
<tr>
<td>Height (BMI)</td>
<td>Wet Mount</td>
</tr>
<tr>
<td>Breast exam</td>
<td>Pap smear</td>
</tr>
<tr>
<td>Abdominal exam</td>
<td>GC/CT</td>
</tr>
<tr>
<td>Hemoglobin/CBC</td>
<td>HIV</td>
</tr>
<tr>
<td>DM scan</td>
<td>HCV</td>
</tr>
<tr>
<td>Lipid panel</td>
<td></td>
</tr>
</tbody>
</table>

What If She Has . . .

- Family history of diabetes? VTE?
- Personal history of chlamydia?
- ASC-US pap on her last pap smear

How Much Back-Up Would You Need to Offer if She Chooses . . .

- Implant
- Copper IUD
- LNG-IUS 20
- LNG-IUS 13.5
- DMPA
- COC
- POP

Back Up Needed if Not Placed at Ideal Time in Cycle

<table>
<thead>
<tr>
<th>Contraceptive</th>
<th>Ideal Time in Cycle</th>
<th>Back-Up # Days</th>
</tr>
</thead>
<tbody>
<tr>
<td>Implant</td>
<td>≤ 5 days</td>
<td>7</td>
</tr>
<tr>
<td>LNG-IUS 20</td>
<td>≤ 7 days</td>
<td>7</td>
</tr>
<tr>
<td>LNG-IUS 13.5</td>
<td>≤ 7 days</td>
<td>7</td>
</tr>
<tr>
<td>CuT380A</td>
<td>N/A</td>
<td>0</td>
</tr>
<tr>
<td>DMPA</td>
<td>≤ 7 days</td>
<td>7</td>
</tr>
<tr>
<td>Combined hormonal contraceptives (COC)</td>
<td>≤ 5 days</td>
<td>7</td>
</tr>
<tr>
<td>Progestin-only pills (POP)</td>
<td>≤ 5 days</td>
<td>2</td>
</tr>
</tbody>
</table>
Nelson: US MEC Meets SPR: A Case-Based Review

See You Soon...

A healthy 30 year old woman just had an uncomplicated initiation of a new method. When do you schedule her next routine follow-up visit?

- IUD 1 month: 3 months: 12 months: “periodic visit”
- Implant 1 month: 3 months: 12 months: “periodic visit”
- DMPA 1 month: 3 months: 12 months: “periodic visit”
- CHC or POPs 1 month: 3 months: 12 months: “periodic visit”

ND is a 36 year old G₂ P₁ who just delivered a 9 pound, 2 ounce baby with Apgar of 7/9. Her placental delivery was marginally delayed, but her uterus firmed with massage so her EBL was 475 cc. She is sure she does not want any more children, but did not sign the informed consent for tubal ligation. She plans to breastfeed her baby for 6 months. Which methods would you offer her?

When Would You Offer...

- Implant
- LNG-IUS 20
- LNG-IUS 13.5
- CuT380A
- DMPA
- COC
- POP

Absolute Risk VTE: SOGC 2010 Estimates

<table>
<thead>
<tr>
<th>Reproductive age women non-users</th>
<th>Oral contraceptive users</th>
<th>In pregnancy - overall</th>
<th>Postpartum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Per 10,000 Women per Year</td>
<td>4 - 5</td>
<td>9 - 10</td>
<td>29</td>
</tr>
</tbody>
</table>
| OCs actually decrease overall rate of VTE in the population compared with rates in populations without access to effective contraception

Risk Factors for VTE

- Age >35
- Prior VTE
- Thrombophilia
- Immobility
- Transfusion at delivery
- BMI ≥ 30
- Postpartum hemorrhage
- C-section delivery
- Preeclampsia
- Smoking

US MEC Postpartum Recommendations Non-breastfeeding Women

<table>
<thead>
<tr>
<th>COC/P</th>
<th>POP</th>
<th>DMPA</th>
<th>Implants</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 21 Days</td>
<td>4</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>21 Days to 42 Days</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>With other risk factors for VTE</td>
<td>3</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Without other risk factors for VTE</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>&gt; 42 Days</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

Whiteman M et al. MMWR 2009;58(30):821-26
US MEC Postpartum Recommendations
Breastfeeding Women
0 - 30 Days

<table>
<thead>
<tr>
<th></th>
<th>COC/P/R</th>
<th>POP</th>
<th>DMPA</th>
<th>Implants</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 21 days</td>
<td>4</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>21 days to &lt; 30 days</td>
<td>2†</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>With other risk factors for VTE</td>
<td>3†</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Without other risk factors for VTE</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
</tbody>
</table>

Whiteman M et al. MMWR 2009;58(30):821-26

US MEC Postpartum Recommendations
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<tr>
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<th>POP</th>
<th>DMPA</th>
<th>Implants</th>
</tr>
</thead>
<tbody>
<tr>
<td>30 – 42 days</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>With other risk factors for VTE</td>
<td>3†</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Without other risk factors for VTE</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>&gt; 42 days</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

Whiteman M et al. MMWR 2009;58(30):821-26

Summary of Recommendations
IUD Use

<table>
<thead>
<tr>
<th></th>
<th>LNG-IUD</th>
<th>Cu-IUD</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 10 minutes after delivery of the placenta</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>≥ 10 minutes after delivery of the placenta to &lt; 4 weeks</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>≥ 4 weeks</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Puerperal sepsis</td>
<td>4</td>
<td>4</td>
</tr>
</tbody>
</table>

Whiteman M et al. MMWR 2009;58(30):821-26

Progestogen-only Contraceptive Use
Among Breastfeeding Women

- Systematic review of all studies of progestin-only methods in breastfeeding women with reports about contraceptive outcomes of either women or their infants
- 43 articles: 5 randomized: 38 observational
- No adverse effects of various progestin-only methods on multiple measures of breastfeeding performance through 12 months


Progestogen-only Contraceptive Use
Among Breastfeeding Women: Infant Impacts

- No adverse effects demonstrated in infant growth, health or development from 6 months to 6 years of age
- No effects on infant immunoglobulins
- No effect on sex hormones of exposed male infants


DMPA and Lactogenesis

- Theoretical concern: progestin could block prolactin
- Evidence shows progestin-only contraceptives do not impair lactation
  - Progestin-only contraceptives may actually increase the quality and duration of lactation

### Early Administration of Progestin-only Methods: Impacts on Breastfeeding

<table>
<thead>
<tr>
<th>By 6 weeks</th>
<th>Percent women</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
</tr>
<tr>
<td>Any breastfeeding</td>
<td>74.4</td>
</tr>
<tr>
<td>Exclusive breastfeeding</td>
<td>35.5</td>
</tr>
<tr>
<td>Supplementing 2nd insufficient milk</td>
<td>61.2</td>
</tr>
<tr>
<td>Stopped breastfeeding 2nd insufficient milk</td>
<td>40.0</td>
</tr>
</tbody>
</table>


### DMPA Within 1 Week of Delivery

- No adverse impact on lactation patterns\(^1,2,3,4,5,6,7\)
- No adverse impacts on neonatal outcomes\(^1,2,3,4,5,6,7\)


### DMPA and Postpartum Depression

- Retrospective chart review: 404 charts postpartum
- Edinburgh Depression Scale (EPDS) routinely given at 6-week visit

<table>
<thead>
<tr>
<th>EPDS Score</th>
<th>% With PPD</th>
</tr>
</thead>
<tbody>
<tr>
<td>55 - immediate DMPA</td>
<td>5.02</td>
</tr>
<tr>
<td>192 - no hormones</td>
<td>6.17</td>
</tr>
<tr>
<td>p Score</td>
<td>0.16</td>
</tr>
</tbody>
</table>

- Conclusion: immediate postpartum administration of DMPA does not predispose to postpartum depression


### DMPA and Weight Gain Postpartum

- DMPA users vs. women with BTL
- Several anthropometric measures taken 1 year postpartum
  - DMPA users did not differ from BTL group in weight or percent body fat changes
  - ½ DMPA users returned to prepregnancy weight
  - ½ DMPA users gained weight
  - Overweight, obese women gained weight


### LNG EC vs. Copper IUD

<table>
<thead>
<tr>
<th>% using effective method</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>LNG-EC</td>
</tr>
<tr>
<td>n</td>
</tr>
<tr>
<td>6 months:</td>
</tr>
<tr>
<td>% continuation</td>
</tr>
<tr>
<td>% pregnant</td>
</tr>
<tr>
<td>12 months:</td>
</tr>
<tr>
<td>% continuation</td>
</tr>
<tr>
<td>% pregnant</td>
</tr>
</tbody>
</table>

* None in current users


### Outcomes of Australian Study

- By 6 weeks, 47% resumed sexual activities
  - 2 were pregnant
  - 9% wanted pregnancy again

<table>
<thead>
<tr>
<th></th>
<th>Implant</th>
<th>COC/DMPA</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>% Repeat pregnancy by 24 months</td>
<td>27</td>
<td>40</td>
<td>50</td>
</tr>
<tr>
<td>Mean time (months)</td>
<td>23.8</td>
<td>18.1</td>
<td>17.6</td>
</tr>
</tbody>
</table>

**Etonogestrel Implant Postpartum: Brazilian Teens**

- ENG implant placed mean: 102 days postpartum
- 65% breastfeeding
- Followed 12 months
- No women requested implant removal
- No pregnancies
- 20% of COC users got pregnant


**IUD Placement Postpartum: Cochrane Review Summary Findings**

- Immediate placement within 10 minutes of delivery of placenta
- Safe when compared to delayed postpartum placement
- Lower expulsion than later postpartum
- Higher expulsion than interval
- Immediate placement at C-section
- Lower expulsion than following vaginal deliveries


**Initiation of Contraception Postpartum**

<table>
<thead>
<tr>
<th></th>
<th>Immediately</th>
<th>Prior to D/C</th>
<th>Later</th>
</tr>
</thead>
<tbody>
<tr>
<td>CuT380A</td>
<td>Minutes?</td>
<td>After involution</td>
<td></td>
</tr>
<tr>
<td>LNG-IUSs</td>
<td>Minutes?</td>
<td>After involution</td>
<td></td>
</tr>
<tr>
<td>Implant</td>
<td></td>
<td>Cat 2</td>
<td>Cat 1</td>
</tr>
<tr>
<td>DMPA, POP</td>
<td>Cat 1 if no BF</td>
<td>If not pregnant</td>
<td></td>
</tr>
<tr>
<td>CHC</td>
<td>No</td>
<td>No</td>
<td>3-6 wks^1,2</td>
</tr>
</tbody>
</table>

1. Depends on risk status

**Enough Already with Irregular Bleeding**

ABY is an 18 year old woman who reports that she continues to have “abnormal bleeding” at least 3 months after she started her method.

- What is your differential diagnosis?
- Do you have any additional questions?
- What tests would you want to perform if she is using:
  - Cu-IUD, LNG-IUS, DMPA, CHC, POP?
  - What if she were 43 years old and obese?


**Irregular Bleeding: More Than Counselling**

- LNG-IUS: Investigate underlying GYN problems, STDs, pregnancy or IUD displacement
- If bleeding unacceptable, offer another method
- Cu-IUD: Same LNG-IUS
- Treatment options: NSAIDs (5-7 days)

Prophylaxis to Prevent Early Bleeding with Implanon
- 129 women, 12 week therapies
  - Started on day of placement
- Treatment arms
  - Naproxen 500 mg BID x 5 day Q 4 weeks x 3 months
  - Estradiol patch 0.1 mg weekly x 3 months
  - Placebo
- Bleeding diaries
- Median # days B + S

<table>
<thead>
<tr>
<th></th>
<th>Naproxen</th>
<th>E2</th>
<th>Placebo</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean # days B + S</td>
<td>27.5</td>
<td>44</td>
<td>32</td>
</tr>
</tbody>
</table>


NSAIDs for Irregular Implanon Bleeding
- 50 women randomized placebo-controlled study
- Mefenamic acid 500 mg PO TID x 5 days

<table>
<thead>
<tr>
<th></th>
<th>Mefenamic acid</th>
<th>Placebo</th>
</tr>
</thead>
<tbody>
<tr>
<td>% bleeding stopped in 7 days</td>
<td>65.2%</td>
<td>21.7%</td>
</tr>
<tr>
<td>No bleeding &gt; 20 day/28 day</td>
<td>56.5%</td>
<td>21.7%</td>
</tr>
<tr>
<td>Mean # B + S day</td>
<td>10.5</td>
<td>16.8</td>
</tr>
</tbody>
</table>


Treatments for Bleeding Problems with Copper IUDs
- Metaanalysis: 17 articles from 1470
- Intermenstrual bleeding or spotting
  - 2 studies of poor quality
  - Antifibrinolytic agents/NSAIDs might help


Treatments for Bleeding Problems with Copper IUDs
- Heavy or prolonged bleeding
  - 10 studies fair to poor quality
    - NSAIDs may significantly reduce loss or duration
    - Antifibrinolytics or antidiuretics may reduce loss
    - High dose aspirin increased loss
- New users
  - Antifibrinolytics or NSAIDs may prevent early bleeding.


Side Effects CuT 380A IUD During Menses – 12 Months

<table>
<thead>
<tr>
<th></th>
<th>0-9 wk</th>
<th>9-19 wk</th>
<th>19-39 wk</th>
<th>&gt; 39 wk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level of pain vs. before IUD</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less</td>
<td>25.3</td>
<td>29.3</td>
<td>27.1</td>
<td>27.7</td>
</tr>
<tr>
<td>Same</td>
<td>36.4</td>
<td>40.1</td>
<td>40.3</td>
<td></td>
</tr>
<tr>
<td>More</td>
<td>38.3</td>
<td>30.6</td>
<td>32.6</td>
<td></td>
</tr>
<tr>
<td>Amount of blood lost vs. before IUD</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less</td>
<td>11.5</td>
<td>13.1</td>
<td>11.9</td>
<td></td>
</tr>
<tr>
<td>Same</td>
<td>29.4</td>
<td>33.0</td>
<td>39.6</td>
<td></td>
</tr>
<tr>
<td>More</td>
<td>56.3</td>
<td>53.9</td>
<td>48.5</td>
<td></td>
</tr>
</tbody>
</table>

Side Effects CuT 380A IUD Intermenstrual – 12 Months

<table>
<thead>
<tr>
<th></th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0-9 wk</td>
</tr>
<tr>
<td>Any pain</td>
<td>21.7</td>
</tr>
<tr>
<td>Any spotting</td>
<td>24.0</td>
</tr>
</tbody>
</table>

- Both pain and bleeding with menses decreased over time
- Intermenstrual problems did not change over time
- Bleeding worsened
- Serious menstrual problems declined over time


IS is a 32 year old GpPpAb, IUD user who has used her LNG-IUS 20 for more than 5 years. She is thinking about having one more pregnancy, so she is not interested in replacing her IUD now. She has not had menses for over 1 year and had intercourse 2 days ago. She thinks she would like to use oral contraceptives while she thinks about pregnancy.

- Any concerns about switching today?
- What do you want to advise her to do?

Switching from IUDs

- If patient has had unprotected intercourse since LMP and is > 5 days since its start, residual sperm may still be in genital tract.
- Options:
  - Advise woman to delay IUD removal until
    - CHC for 7 days
    - Abstinence or barriers for 7 days
  - OR
  - Remove IUD and advise hormonal EC ASAP

LI is a 17 year old woman who has used DMPA for 2 injections. Her last injection was 15 weeks ago although she has not had any bleeding for 2 months. She wants more DMPA. Her last intercourse was without condoms 3 days ago.

- Do you want any more information?
- Does she need pregnancy testing? EC?
- When can she have her next injection?

OY is a 28 year old mother of 2 small children who works part-time at a local fast food restaurant. Her BMI is 33.2. Despite your suggestions, OY says she wants to continue to use her pills. She had unprotected intercourse last night.

- What EC do you want to give her?
- When should she start her pills?
- How many packs do you prescribe?

What Should a Woman Do If. . .

- She is late starting her pills?
- She misses a pill?
- She has nausea or vomiting while taking pills?
Recommended Actions After Late or Missed Combined Oral Contraceptives

- Take the missed hormonal pill as soon as possible (any other missed pills should be discarded).
- Continue taking the remaining pills at the usual time even if it means taking two pills on the same day.
- No additional contraceptive protection is needed.
- Emergency contraception is not needed but can be considered if delayed application or detachment occurred within the first week and unprotected sexual intercourse occurred in the previous 5 days.

Recommended Steps After Vomiting or Diarrhea While Using Combined Oral Contraceptives

- Vomiting or diarrhea, for any reason,
  - If vomiting or diarrhea occurred within the first week of hormonal pills and unprotected sexual intercourse occurred in the previous 5 days,
    - Emergency contraception may also be considered at other times as appropriate.
- Vomiting or diarrhea, for any reason, continuing for 24 to <48 hours after taking any hormonal pill
  - Continue taking any hormonal pill(s) as usual.
  - If back-up contraception (e.g., condoms or non-hormonal IUD) was used, no additional contraception is needed.

Recommended Actions After Delayed Application or Detachment with Combined Hormonal Patch

- Delayed application or detachment of any reason, continuing for <48 hours since a patch should have been applied or reattached
  - Apply a new patch as soon as possible.
  - Keep the same patch change day.
  - No additional contraceptive protection is needed.
  - Emergency contraception is not needed if delayed application or detachment occurred earlier in the cycle or in the last week of the previous cycle.

Recommended Actions After Delayed Insertion or Reinsertion with Combined Vaginal Ring

- Delayed insertion or reinsertion of any reason, continuing for <48 hours since a ring should have been inserted
  - Insert ring as soon as possible.
  - Keep the ring in until the scheduled ring removal day.
  - No additional contraceptive protection is needed.
  - Emergency contraception is not needed but can be considered if delayed application or detachment occurred earlier in the cycle or in the last week of the previous cycle.

What Should a Woman Do If...

- She is late starting her patch?
- She finds her patch is detached?
- She forgets to change her patch?

- Insert ring as soon as possible.
- Keep the ring in until the scheduled ring removal day.
- No additional contraceptive protection is needed.
- Emergency contraception is not needed but can be considered if delayed application or detachment occurred earlier in the cycle or in the last week of the previous cycle.

- Any hormonal pill(s) should have been taken.
- Any hormonal pill(s) should have been taken.
- Any hormonal pill(s) should have been taken.
- Any hormonal pill(s) should have been taken.
- Any hormonal pill(s) should have been taken.