U.S. Medical Eligibility Criteria for Contraceptive Use, 2010

Division of Reproductive Health
Centers for Disease Control and Prevention

August 1, 2013
Learning Objectives

Participants will be able to:

- Describe the US Medical Eligibility Criteria for Contraceptive Use, 2010 (US MEC) and updates
- Identify the intended use and target audience for the guidance
- Define the 4 classifications of recommendations in the US MEC
- Apply the guidance in specific situations, based on clinical scenarios
U.S. Medical Eligibility Criteria for Contraceptive Use, 2010

Adapted from the World Health Organization Medical Eligibility Criteria for Contraceptive Use, 4th edition
US Medical Eligibility Criteria for Contraceptive Use, 2010

- Companion document to US Selected Practice Recommendations for Contraceptive Use, 2013 (US SPR)
- Adapted from World Health Organization (WHO) MEC
- Target audience: health-care providers
- Purpose: to assist health care providers when they counsel patients about contraceptive use and to serve as a source of clinical guidance
- Content: over 1800 recommendations for over 60 conditions
Why is evidence-based guidance for contraceptive use needed?

- To base family planning practices on the best available evidence
- To address misconceptions regarding who can safely use contraception
- To remove unnecessary medical barriers
- To improve access and quality of care in family planning
Contraceptive Methods in US MEC

- Combined hormonal contraceptives
- Progestin-only contraceptives
- Emergency contraceptive pills
- Intrauterine devices
- Barrier contraceptive methods
- Fertility Awareness-Based Methods
- Lactational Amenorrhea Method
- Coitus Interruptus
- Female and Male Sterilization
US MEC Recommendations

- Recommendations for use of contraceptive methods, based on specific conditions
- Conditions defined as:
  - Individual’s characteristics
  - Known preexisting medical/pathologic condition
- Refer to methods being used for contraception, not treatment of a medical condition
## US Medical Eligibility Criteria: Categories

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>No restriction for the use of the contraceptive method for a woman with that condition</td>
</tr>
<tr>
<td>2</td>
<td>Advantages of using the method generally outweigh the theoretical or proven risks</td>
</tr>
<tr>
<td>3</td>
<td>Theoretical or proven risks of the method usually outweigh the advantages – not usually recommended unless more appropriate methods are not available or acceptable</td>
</tr>
<tr>
<td>4</td>
<td>Unacceptable health risk if the contraceptive method is used by a woman with that condition</td>
</tr>
</tbody>
</table>

## Example: Smoking and Contraceptive Use

<table>
<thead>
<tr>
<th>Condition</th>
<th>COC/P/R</th>
<th>POP</th>
<th>DMPA</th>
<th>Implants</th>
<th>Cu-IUD</th>
<th>LNG-IUD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smoking</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Age &lt;35</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>b. Age ≥35</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>i. &lt;15 cigarettes/day</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>II. ≥15 cigarettes/day</td>
<td>4</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

### Initiation and Continuation

- **Separate columns if recommendations differ for:**
  - Initiation criteria (preexisting conditions)
  - Continuation criteria (condition develops or worsens)

<table>
<thead>
<tr>
<th>Headache</th>
<th>Combined Hormonal Contraceptives</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Initiation</td>
</tr>
<tr>
<td>Non-migrainous (mild or severe)</td>
<td>1</td>
</tr>
<tr>
<td>Migraine</td>
<td></td>
</tr>
<tr>
<td>Without aura</td>
<td></td>
</tr>
<tr>
<td>Age &lt; 35 years</td>
<td>2</td>
</tr>
<tr>
<td>Age &gt;= 35 years</td>
<td>3</td>
</tr>
<tr>
<td>With aura, at any age</td>
<td>4</td>
</tr>
</tbody>
</table>
Contraceptive Methods in US MEC

- Combined hormonal contraceptives (CHCs)
- Progestin-only contraceptives
- Emergency contraceptive pills
- Intrauterine contraception
- Barrier contraceptive methods
- Fertility Awareness-Based Methods (FAB)
- Lactational Amenorrhea Method
- Coitus Interruptus
- Female and Male Sterilization
<table>
<thead>
<tr>
<th>Conditions Associated with Increased Risk for Adverse Health Events as a Result of Unintended Pregnancy</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Breast cancer</strong></td>
</tr>
<tr>
<td>Malignant liver tumors (hepatoma) and hepatocellular carcinoma of the liver</td>
</tr>
<tr>
<td><strong>Complicated valvular heart disease</strong></td>
</tr>
<tr>
<td>Peripartum cardiomyopathy</td>
</tr>
<tr>
<td><strong>Diabetes: insulin dependent; with nephropathy/retinopathy/neuropathy or other vascular disease; or of &gt;20 years’ duration</strong></td>
</tr>
<tr>
<td>Schistosomiasis with fibrosis of the liver</td>
</tr>
<tr>
<td><strong>Endometrial or ovarian cancer</strong></td>
</tr>
<tr>
<td>Severe (decompensated) cirrhosis</td>
</tr>
<tr>
<td><strong>Epilepsy</strong></td>
</tr>
<tr>
<td>Sickle cell disease</td>
</tr>
<tr>
<td><strong>Hypertension (systolic &gt; 160 mm Hg or diastolic &gt; 100 mm Hg)</strong></td>
</tr>
<tr>
<td>Solid organ transplantation within the past 2 years</td>
</tr>
<tr>
<td><strong>History of bariatric surgery within past 2 years</strong></td>
</tr>
<tr>
<td>Stroke</td>
</tr>
<tr>
<td><strong>HIV/AIDS</strong></td>
</tr>
<tr>
<td>Systemic lupus erythematosus</td>
</tr>
<tr>
<td><strong>Ischemic heart disease</strong></td>
</tr>
<tr>
<td>Thrombogenic mutations</td>
</tr>
<tr>
<td><strong>Malignant gestational trophoblastic disease</strong></td>
</tr>
<tr>
<td>Tuberculosis</td>
</tr>
</tbody>
</table>
## Conditions Associated with Increased Risk for Adverse Health Events as a Result of Unintended Pregnancy

<table>
<thead>
<tr>
<th>Condition</th>
<th>Risk Factor</th>
</tr>
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<tbody>
<tr>
<td>Breast cancer</td>
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<tr>
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</tr>
<tr>
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</tr>
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</table>

Should consider long-acting, highly-effective contraception for these patients.
Keeping Guidance Up to Date

- CIRE system: Continuous Identification of Research Evidence
- UPDATE: Revised Recommendations for the Use of Contraceptive Methods During the Postpartum Period¹
- UPDATE: Revised Recommendations for the Use of Hormonal Contraception Among Women at High Risk for HIV Infection or Infected with HIV²

1. CDC, MMWR 2011; 60:878-883
2. CDC. MMWR 2012;61:449-452
Dissemination, Implementation and Evaluation

- Adopted by Title X Family Planning Program
  - All Title X clinics are expected to use
  - Incorporated into revised Title X Clinical Guidelines
- Endorsed by ACOG
  - Committee Opinion, September 2011
- Incorporated into national standards and protocols
- Reprinted in 20th Edition of Contraceptive Technology and Managing Contraception
- National Guidelines Clearinghouse (guidelines.gov)
- Baseline and follow-up evaluation

ACOG Committee Opinion, No 505, 2011.
How to use the US MEC

Appendix B: Classifications for Combined Hormonal Contraceptives

Condition: HYPERTENSION. For all categories of hypertension, classifications are based on the assumption that no other risk factors exist for cardiovascular disease. When multiple risk factors do exist, risk for cardiovascular disease might increase substantially. A single reading of blood pressure level is not sufficient to classify a woman as hypertensive.

Category:
- Adequately controlled hypertension - 2 (Reka initially recommend advantages)
Provider Tools and Learning Aids

- Summary tables in English, Spanish
- US MEC Wheel
- iPhone and iPad app
- Continuing Education Activities
- Speaker-ready slides
- Contraceptive Effectiveness Chart
Locating CDC contraception guidance
CDC Contraceptive Guidance for Health Care Providers

Unintended pregnancy rates remain high in the United States. About 50% of all pregnancies are unintended, with higher proportions among adolescent and young women, women who are racial/ethnic minorities, and women with lower levels of education and income.1 Unintended pregnancies increase the risk for poor maternal and infant outcomes2 and in 2002, resulted in $5 billion in direct medical costs in the United States.3

About half of unintended pregnancies are among women who were not using contraception (birth control) at the time they became pregnant. The other half are among women who became pregnant despite reported use of contraception.4 Strategies to prevent unintended pregnancy include removing unnecessary medical barriers to contraceptive use, and helping women and men at risk for unintended pregnancy choose appropriate contraceptive methods and use them correctly and consistently to prevent pregnancy.

In 2010, CDC adapted global guidance from the World Health Organization (WHO) to help health care providers counsel women, men, and couples about contraceptive method choice. The U.S. Medical Eligibility Criteria for Contraceptive Use, 2010 (US MEC), focuses on who can safely use specific methods of contraception, and provides recommendations for the safety of contraceptive methods for women with various medical conditions (such as hypertension and diabetes) and characteristics (such as age, parity, and smoking status).

The U.S. Selected Practice Recommendations for Contraceptive Use, 2013 (US SPR) provides guidance on how contraception methods can be used and how to remove unnecessary barriers for patients in accessing and successfully using contraceptive methods. The US SPR includes recommendations on when women can start contraceptive methods, what exams and tests are needed before starting a method, what follow-up is appropriate, and how to address side effects and other problems with contraceptive method use.

How to Use the US MEC and US SPR
Health care providers can use these documents when counseling patients about contraceptive choice, how to use contraceptive methods, and how to manage problems with contraceptive use. CDC has developed several provider tools, including summary charts, a US MEC wheel, and mobile tools for easy access to this guidance.

CDC is committed to keeping this clinical guidance up to date and to be the best available scientific evidence. CDC will continue to work with WHO to identify and assess all new relevant evidence and determine whether changes in the recommendations are warranted. Updates to the guidance will be posted on this Web site or can be received by signing up for E-mail Updates.

United States Medical Eligibility Criteria (US MEC) for Contraceptive Use, 2010

The United States Medical Eligibility Criteria for Contraceptive Use, 2010 (US MEC) is intended to assist health care providers when counseling women, men, and couples about contraceptive method choice. The US MEC provides guidance on the safety of contraceptive method use for women with specific characteristics and medical conditions. This document is not intended to be a substitute for professional medical advice; persons should seek advice from their health care providers when determining family planning options.

CDC went through a formal adaptation process to create the US MEC. In 1996, the World Health Organization (WHO) published the first edition of the Medical Eligibility Criteria for Contraceptive Use. WHO has always intended for its global guidance to be used by policy makers, family planning program managers, and the scientific community as a reference when developing family planning guidance at the country or program level.

The US MEC has a companion document, U.S. Selected Practice Recommendations for Contraceptive Use, 2013 (US SPR), which addresses how to use contraceptive...
Scenario 1

- 28 year old G1P0 female is pregnant and being counseled for postpartum family planning. She is not planning on breastfeeding. What options are available to her postpartum?

A. IUD (copper or levonorgestrel)
B. Progestin-only methods (pill, injectable, implant)
C. Combined hormonal methods (pill, patch, ring)
Why is postpartum contraception important?

- Avoid unintended pregnancy and short birth interval

- May be ideal time to provide contraception
  - Motivation
  - Access to health care services, especially during delivery hospitalization

- Prevent repeat adolescent pregnancies
  - 20% of adolescent births are repeat births

Systematic Review: Postpartum VTE

- 3 studies directly compared postpartum risk of deep vein thrombosis to non-pregnant women
  - Risk is 22 to 84 times as high in postpartum women than non-pregnant women

- Rate ratio comparing rates of venous thromboembolism (VTE) among postpartum and non-pregnant women calculated for 3 studies
  - Rate Ratio: 2.5 to 21.5 in postpartum women

- 3 studies provided weekly data
  - Indicated that risk decreases markedly after first 3 to 4 weeks postpartum
  - Most studies convey no significant increase after 6 weeks

Jackson et al. Obstetrics and Gynecology 2011;117:691-703
Hormonal methods for non-breastfeeding postpartum women

<table>
<thead>
<tr>
<th>Postpartum (non-breastfeeding)</th>
<th>CHCs</th>
<th>Progestin-only methods</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;21 days</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>21-42 days</td>
<td></td>
<td></td>
</tr>
<tr>
<td>With other risk factors for VTE</td>
<td>3*</td>
<td>1</td>
</tr>
<tr>
<td>Without other risk factors for VTE</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>&gt;42 days</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

*Clarification: Other risk factors might increase classification to “4”*
### Postpartum IUD Insertion

<table>
<thead>
<tr>
<th>Postpartum (breastfeeding or non-breastfeeding, including post cesarean section)</th>
<th>LNG-IUD</th>
<th>Cu-IUD</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;10 min after delivery of placenta</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>10 min to &lt;4 weeks</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>&gt;4 weeks</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Puerperal sepsis</td>
<td>4</td>
<td>4</td>
</tr>
</tbody>
</table>
Systematic Review of Postpartum IUD

- Identified 15 articles of poor to fair quality
- Outcomes from copper IUD insertions
  - Postpartum time period compared to other time intervals
  - Routes of postpartum insertion (vaginal or via hysterotomy)
  - No studies of levonorgestrel IUDs were identified
- Immediate IUD insertion is safe
- Lower Expulsion Rates
  - Immediate insertion compared to delayed postpartum insertion
  - Interval insertion compared to immediate postpartum
  - Postplacental placement during cesarean delivery compared to postplacental vaginal insertion

Kapp and Curtis. *Contraception* 2009;80:327-336
Scenario 1

- 28 year old G1P0 female is pregnant and being counseled for postpartum family planning. She is not planning on breastfeeding. What options are available to her immediately postpartum?

A. IUD (copper or levonorgestrel)
B. Progestin-only methods (pill, injectable, implant)
C. Combined hormonal methods (pill, patch, ring)
   (Wait until 21-42 days postpartum, depending on VTE risk factors)
Scenario 2

- 38 year old G2P2 female with diabetes has been using condoms for contraception and is looking for a more effective method. What methods are safe for her to use?

  A. IUD (copper or levonorgestrel)
  B. Progestin-only methods (pill, injectable, implant)
  C. Combined hormonal methods (pill, patch, ring)
Evidence

- Use of COCs among women with history of gestational diabetes does not increase risk of developing noninsulin-dependent diabetes
- Use of COCs among women with insulin- or noninsulin-dependent diabetes:
  - Limited effect on daily insulin requirements
  - No effect on long-term diabetes control
  - No effect on progression to retinopathy

CDC, MMWR 2010; 59, No RR-4
### Diabetes

<table>
<thead>
<tr>
<th>Condition</th>
<th>COC/P/R</th>
<th>POP</th>
<th>DMPA</th>
<th>Implants</th>
<th>LNG-IUD</th>
<th>Cu-IUD</th>
</tr>
</thead>
<tbody>
<tr>
<td>History of gestational disease</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Nonvascular disease</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Noninsulin-dependent</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Insulin-dependent§</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Nephropathy/retinopathy/neuropathy§</td>
<td>3/4†</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Other vascular disease or diabetes of &gt;20 yrs' duration§</td>
<td>3/4†</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

§ Condition that exposes a woman to increased risk as a result of unintended pregnancy
† This category should be assessed according to the severity of the condition
Scenario 2

- 38 year old G2P2 female with diabetes has been using condoms for contraception and is looking for a more effective method. You now know that she is non-insulin dependent and has no vascular disease. What methods are safe for her to use?

A. IUD (copper or levonorgestrel)
B. Progestin-only methods (pill, injectable, implant)
C. Combined hormonal methods (pill, patch, ring)
ALL OF THE ABOVE
Scenario 3

A 30 year old female has a history of bariatric surgery 1 year ago. She was using COCs before her surgery and desires to restart them. What do you need to know before deciding whether to recommend this method?

A. How much weight has she lost?

B. What type of surgery did she have?

C. What pill formulation did she use previously?
Bariatric surgery

- **Restrictive procedures:**
  - Decrease storage capacity of stomach
  - Ex: vertical banded gastroplasty, laparoscopic adjustable gastric band, laparoscopic sleeve gastrectomy

- **Malabsorptive procedures:**
  - Decrease absorption of nutrients and calories by shortening functional length of small intestine
  - Ex: Roux-en-Y gastric bypass (most common in US), biliopancreatic diversion
Bariatric surgery

- **Risks**
  - Postop complications- VTE/PE
  - Long term complications- protein calorie malnutrition, metabolic bone disease, hepatic dysfunction, vitamin and mineral deficiencies
- Consensus to avoid pregnancy for 12-24 months
  - Majority of weight loss and postop comps occur
- Weight loss may increase fertility
- Theoretical concerns for contraception
  - Effectiveness of oral methods from malabsorption, postop diarrhea or vomiting
  - VTE risk from major surgery and obesity
Evidence

- 5 studies
  - Effectiveness: 2 studies showing conflicting evidence re pregnancies with OCs, no pregnancies in DMPA or IUD users
  - Safety: 1 case report, woman using OCs experienced stroke
  - PK: 2 studies showing lower plasma levels of hormones in women who had surgery

## History of bariatric surgery

<table>
<thead>
<tr>
<th>Condition</th>
<th>COC/P/R</th>
<th>POP</th>
<th>DMPA</th>
<th>Implants</th>
<th>Cu-IUD</th>
<th>LNG-IUD</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Restrictive procedures</strong></td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td><strong>COCs:</strong> 3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>P/R:</strong> 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Malabsorptive procedures</strong></td>
<td>COCs: 3</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td><strong>P/R:</strong> 1</td>
<td>1</td>
<td></td>
<td></td>
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<td></td>
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<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>


Scenario 3

- A 30 year old female has a history of bariatric surgery 1 year ago. She was using COCs before her surgery and desires to restart them. What do you need to know before deciding whether to recommend this method?

Answer:

B. What type of surgery did she have? If malabsorptive procedure, would not recommend OCs, unless other methods are not available or acceptable (Category 3).
Take Home Messages

- US MEC provides evidence-based recommendations for safe use of contraceptive methods by women and men with various conditions
- Most women can safely use most contraceptive methods
- Certain conditions are associated with increased risk for adverse health events as a result of unintended pregnancy
- Women at risk of unintended pregnancy need access to highly effective contraceptive methods
- Women, men and couples should be informed of full range of methods to decide what will be best for them
Resources

- CDC evidence-based family planning guidance documents: http://www.cdc.gov/reproductivehealth/unintendedpregnancy/USMEC.htm
  - Sign up to receive alerts!