Resource for Education on Pregnancy and Planning

REPP
PROVIDING CONTRACEPTIVE CARE FOR CLIENTS WITH CHRONIC CONDITIONS

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DISCLOSURES

• The Department of Obstetrics and Gynecology receives funding for industry clinical trials from Medicines360, Synteract, and Femasys
PERSONAL INTRODUCTION

Lori Gawron, MD, MPH
Assistant Professor
Obstetrics and Gynecology
LEARNING OBJECTIVES:

1. Review U.S. pregnancy intention data
2. Discuss chronic disease burden
3. Examine contraceptive decision making in chronic disease
   - Efficacy
   - Safety
   - Acceptability
   - Availability
Reproductive “Planning”
Pregnancies by Intention Status

Nearly half of U.S. pregnancies are unintended.

- **Intended**: 55%
- **Mistimed**: 27%
- **Unwanted**: 18%

www.guttmacher.org
Modern Contraception Works

The two-thirds of U.S. women at risk of unintended pregnancy who practice contraception consistently and correctly account for only 5% of unintended pregnancies.

Women at Risk (43 Million in 2008)
- 68% Consistent use
- 18% Inconsistent use
- 14% Nonuse or long gaps in use

By consistency of method use all year

Unintended Pregnancies (3.1 Million)
- 54% Nonuse
- 41% Inconsistent use
- 5% Consistent use

By consistency of method use during month of conception
OBJECTIVES

• Review U.S. pregnancy intention data
• Discuss chronic disease burden
• Examine contraceptive decision making in chronic disease
  – Efficacy
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CHRONIC HEALTH CONDITIONS

• Prevalence of chronic medical conditions among reproductive age women is increasing

• Increased risk of unintended pregnancy in women with chronic diseases¹

PREGNANCY OUTCOMES

• Pregnancy MUST be planned

• Active disease at the time of conception is associated with:
  – Recurrent flares in pregnancy
  – Miscarriage
  – Preterm delivery
  – Low birth weight
  – Adverse outcomes with unintended pregnancy
CHRONIC CONDITIONS

- Breast cancer
- Complicated valvular heart disease
- Cystic fibrosis
- Complicated diabetes
- Endometrial or ovarian cancer
- Epilepsy
- HTN
- Bariatric surgery
- HIV/AIDS
- Ischemic heart disease
- GTD

- Malignant liver tumors
- Peripartum cardiomyopathy
- Schistosomiasis
- Cirrhosis
- Sickle Cell
- Solid organ Tx
- Stroke
- Lupus
- Thrombogenic mutations
- TB

CDC MEC 2016
<table>
<thead>
<tr>
<th>Condition</th>
<th>Total (368,448)</th>
<th>15-34y (205,022)</th>
<th>35-44y (163,426)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any Condition</td>
<td>44,523 (12.1)</td>
<td>10,361 (5.1)</td>
<td>34,162 (20.9)</td>
</tr>
<tr>
<td>HTN</td>
<td>30,515 (8.3)</td>
<td>5,048 (2.5)</td>
<td>25,467 (15.6)</td>
</tr>
<tr>
<td>DM</td>
<td>10,903 (3.0)</td>
<td>2,621 (1.3)</td>
<td>8,282 (5.1)</td>
</tr>
<tr>
<td>Epilepsy</td>
<td>2,842 (0.8)</td>
<td>1,842 (0.9)</td>
<td>1,000 (0.6)</td>
</tr>
<tr>
<td>Breast Cancer</td>
<td>1,587 (0.4)</td>
<td>108 (0.1)</td>
<td>1,479 (0.9)</td>
</tr>
<tr>
<td>Stroke</td>
<td>1,612 (0.4)</td>
<td>480 (0.2)</td>
<td>1,132 (0.7)</td>
</tr>
<tr>
<td>Bariatric Sx</td>
<td>1,480 (0.4)</td>
<td>324 (0.2)</td>
<td>1,156 (0.7)</td>
</tr>
<tr>
<td>Ischemic Heart Dx</td>
<td>1,298 (0.4)</td>
<td>172 (0.1)</td>
<td>1,126 (0.7)</td>
</tr>
<tr>
<td>SLE</td>
<td>1,270 (0.3)</td>
<td>401 (0.2)</td>
<td>869 (0.5)</td>
</tr>
<tr>
<td>Thrombophilia</td>
<td>735 (0.2)</td>
<td>262 (0.1)</td>
<td>473 (0.3)</td>
</tr>
</tbody>
</table>

CHRONIC CONDITIONS

- Breast cancer
- Complicated valvular heart disease
- Cystic fibrosis
- Complicated diabetes
- Endometrial or ovarian cancer
- Epilepsy
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- Bariatric surgery
- HIV/AIDS
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- GTD
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- Cirrhosis
- Sickle Cell
- Solid organ Tx
- Stroke
- Lupus
- Thrombogenic mutations
- TB
- Depression
- Substance use
- Obesity
- Rheumatoid arthritis
- IBD
- Asthma
- Thyroid Dx

CDC MEC 2016
Proportion of Reproductive Age Women with 1+ Chronic Condition

- Healthy (503,781)
- Chronic condition (237,831)
BARRIERS TO USE

• Prioritizing disease management over contraception
• Contraceptive misinformation/side-effects/risks
• Provider misinformation
• Perceived infertility
• Avoidance of "polypharmacy"
• “Silos” of care
OBJECTIVES

• Review U.S. pregnancy intention data
• Discuss chronic disease burden
• Examine contraceptive decision making in chronic disease
  – Efficacy
  – Safety
  – Acceptability
  – Availability
HOW WELL DOES BIRTH CONTROL WORK?

- **Really, really well**
  - The Implant (Nexplanon)
  - IUD (Skylla)
  - IUD (Mirena)
  - IUD (ParaGard)
  - Sterilization, for men and women
  - Works, hassle-free, for up to...
    - 3 years
    - 3 years
    - 5 years
    - 12 years
    - Forever
  - Less than 1 in 100 women

- **O.K.**
  - The Pill
  - The Patch
  - The Ring
  - The Shot (Depo-Provera)
  - For it to work best, use it...
    - Every week
    - Every month
    - Every 3 months
  - 6-9 in 100 women, depending on method

- **Not as well**
  - Pulling Out
  - Fertility Awareness
  - Diaphragm
  - Condoms, for men or women
  - Needed for STD protection
  - Use with any other method
  - For each of these methods to work, you or your partner have to use it every single time you have sex.
  - 12-24 in 100 women, depending on method

FYI, without birth control, over 99 in 100 young women get pregnant in a year.
## PHARMACOLOGIC ACTIONS

<table>
<thead>
<tr>
<th><strong>Progestin</strong></th>
<th><strong>Estrogen</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Ovarian and pituitary inhibition</td>
<td>Ovarian and pituitary inhibition</td>
</tr>
<tr>
<td>Thickening of cervical mucus</td>
<td>Thinning of/increase in cervical mucus</td>
</tr>
<tr>
<td>Endometrial atrophy/ transformation</td>
<td>Endometrial proliferation</td>
</tr>
<tr>
<td>Cycle control</td>
<td>Cycle control</td>
</tr>
</tbody>
</table>
Progestogens

- Progesterone
  - Pregnanes
    - Medroxy-progesterone acetate
    - Cyproterone acetate
    - Megestrol acetate
  - Estranes
    - Norethindrone
    - Norethindrone acetate
    - Ethynodiol diacetate
  - Gonanes
    - Norgestrel
    - Levonorgestrel
    - Norgestimate
    - Desogestrel
    - Gestodene
  - 17α-spirolactone
  - 19-nortestosterone

Progesterone
OBJECTIVES

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  – Safety
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  – Availability
Evidence-based guidance on the contraceptive safety for U.S. women with specific characteristics and medical conditions

Modified by the CDC from the WHO MEC
Six new medical diagnoses added- IBD, bariatric surgery, solid organ transplant, etc.
WHY THE MEC??

Can a teen use an IUD?

Can a woman on seizure meds use the patch?

Can a breastfeeding woman use the shot?

Can a diabetic use the pill?
US MEC CATEGORIES

US Medical Eligibility Criteria (US MEC)

- **Category 1**: No restriction for the use of the contraceptive method
- **Category 2**: Advantages generally outweigh the theoretical or proven risks
- **Category 3**: Theoretical or proven risks usually outweigh the advantages
- **Category 4**: Unacceptable health risk if the contraceptive method is used
# U.S. MEC

<table>
<thead>
<tr>
<th>Condition</th>
<th>Sub-Condition</th>
<th>Cu-IUD</th>
<th>LNG-IUD</th>
<th>Implant</th>
<th>DMPA</th>
<th>POP</th>
<th>CHC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diabetes</td>
<td>a) 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></td>
<td>b) Nonvascular disease</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>i) Non-insulin dependent</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>ii) Insulin dependent</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>c) Nephropathy/retinopathy/neuropathy</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>3/4*</td>
</tr>
<tr>
<td></td>
<td>d) Other vascular disease or diabetes</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>3/4*</td>
</tr>
<tr>
<td></td>
<td>of &gt;20 years’ duration</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dysmenorrhea</td>
<td>Severe</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Endometrial cancer</td>
<td></td>
<td>4</td>
<td>2</td>
<td>4</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>
**VTE AND COC**

**ANALYSIS OF 220 ARTICLES 1995-2001**

<table>
<thead>
<tr>
<th></th>
<th>Rate*</th>
<th>RR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseline</td>
<td>0.5 -1</td>
<td>1.0</td>
</tr>
<tr>
<td>COC</td>
<td>1-3</td>
<td>2-3</td>
</tr>
<tr>
<td>Pregnancy</td>
<td>6</td>
<td>6-12</td>
</tr>
</tbody>
</table>

*10,000 Reproductive Age Women Per Year

PROGESTIN SAFETY

• Systematic review on thrombosis risk and POCs\textsuperscript{1}
  – No increased odds of VTE/CVA/AMI with implants, IUDs, and POPs for contraception
  – DMPA (3 studies)
    • 2 studies: Smokers and thrombophilia increased VTE risk
    • 1 study: H/O VTE non-significant increased risk recurrence
    • 2 studies: Healthy users increased VTE risk
    • 2 studies: POCs for therapeutic indications increased VTE

• No overall increase in venous or arterial events

\textsuperscript{1}Tepper NK, et al. *Contraception* 2016
OBJECTIVES

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ACCEPTABILITY

• Side effects- may be positive or negative
• Birth spacing/ pregnancy planning
• Partner
• Non-contraceptive benefits
NON-CONTRACEPTIVE BENEFITS

• Cancer Reduction
  – Ovarian
  – Endometrial
  – Colorectal

• Cycle-related Conditions
  – Menorrhagia
  – Endometriosis

• Prevention
  – Bone Loss
  – Fibrocystic/benign breast disease

• Treatment
  – Acne
  – Hirsutism
  – Menstrual migraines

Disease-related benefits!!
OBJECTIVES

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AVAILABILITY

• Provider training
• Insurance
PROVIDER LIMITATIONS
ONE KEY QUESTION®

Ask*: “Would you like to become pregnant in the next year?”

**YES**
- Review Chronic Health Conditions, Urgent Psychosocial Concerns, Prescribe Multi-vitamin with Folic acid
  - Medication Review
  - Review birth spacing recommendations and optional timing for wellness
  - Develop follow up plan for additional preconception care and assess contraception needs

**OK EITHER WAY**

**UNSURE**
- Screen for current contraception use
  - Assess satisfaction of method and compliance of use
  - Review effectiveness, offer all options including LARC and Emergency Contraception

**NO**
TAKE HOME POINTS

• Reproductive planning needs to be integrated into disease management
• Nearly ½ of pregnancies unintended- chronic disease patients at increased risk for adverse outcomes
• Address all decision making
  – Efficacy discussion
  – Safety
  – Acceptability
  – Availability
QUESTIONS?

1. Estrogen is found in which of the following hormonal contraceptive methods
   a. Hormonal IUD
   b. Copper IUD
   c. Contraceptive implant
   d. Contraceptive patch

2. The CDC US Medical Eligibility Criteria for Contraceptive Use provides guidance on which of the following topics:
   a. Contraceptive efficacy
   b. Contraceptive safety
   c. Contraceptive acceptability
   d. Contraceptive side effects
CONTACT INFO

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