REPRODUCTIVE PLANNING IN WOMEN WITH CHRONIC HEALTH CONDITIONS

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DISCLOSURES

• Evofem medical advisory board
• Merck Nexplanon trainer
OBJECTIVES

• Review U.S. pregnancy intention data

• Discuss chronic disease burden

• 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)
- 5% Consistent use
- 54% Nonuse
- 41% Inconsistent use

By consistency of method use during month of conception
OBJECTIVES

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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 diseases\(^1\)

\(^1\)Chor, et al. *Contraception* 2011
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
### PREVALENCE OF DISEASE, 2004-11

<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>

METHOD MIX, 2011

CHRONIC CONDITIONS

- Breast cancer
- Complicated valvular heart disease
- Cystic fibrosis
- Complicated diabetes
- Endometrial or ovarian cancer
- Epilepsy
- HTN
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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
UTAH DATA, 2010-14

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

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  – Efficacy
  – Safety
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HOW WELL DOES BIRTH CONTROL WORK?

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

O.K.
- The Pill
  For it to work best, use it... Every. Single. Day.
- The Patch
  Every week
- The Ring
  Every month
- The Shot (Depo-Provera)
  Every 3 months

Not as well
- Pulling Out
- Fertility Awareness
- Diaphragm
- Condoms, for men or women

What is your chance of getting pregnant?
- Less than 1 in 100 women
- 6-9 in 100 women, depending on method
- 12-24 in 100 women, depending on method

FYI, without birth control, over 20 in 100 young women get pregnant in a year.
# PHARMACOLOGIC ACTIONS

<table>
<thead>
<tr>
<th>Progestin</th>
<th>Estrogen</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
    - Medroxyprogesterone acetate
    - Cyproterone acetate
    - Megestrol acetate
  - Estranes
    - Norethindrone
    - Norethindrone acetate
    - Ethynodiol diacetate
  - Gonanes
    - Norgestrel
    - Levonorgestrel
    - Norgestimate
    - Desogestrel
    - Gestodene
- 19-nortestosterone
- 17α-spirolactone

Drospirenone
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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

- **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>Diabetes</td>
<td>b) Nonvascular disease</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diabetes</td>
<td>b1) 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>Diabetes</td>
<td>b2) Insulin dependent</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Diabetes</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>Diabetes</td>
<td>d) Other vascular disease or diabetes of &gt;20 years’ duration‡</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>3/4*</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>Category</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\(^1\)
  - 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

\(^1\)Tepper NK, et al. *Contraception* 2016
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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
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AVAILABILITY

- Provider training
- Insurance
DISPARITIES
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**
SUMMARY

• Reproductive planning needs to be integrated into disease management
• Nearly $\frac{1}{2}$ of pregnancies unintended—chronic disease patients at increased risk for adverse outcomes
• Address all decision making
  – Efficacy discussion
  – Safety
  – Acceptability
  – Availability
QUESTIONS?

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