Contraception in the Later Reproductive Years

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Learning Objectives

• In caring for women during the later reproductive years, the attendee will be able to:
  • Counsel women about decreasing fertility
  • Identify medical conditions impacting contraception and help patients choose appropriate contraception
  • Discuss contraception & endometrial protection during the perimenopause
Case 1

• 47 year old
• G4 P3013
• No menses for 6 months
• Started bleeding heavily 8 days ago
• How would you evaluate?
Evaluation

• CBC
• TSH
• Endometrial biopsy
• AND....Pregnancy test!
How Old is Too Old to Get Pregnant?

Menken, Science 1986

% Sterile

NOT 100%

Age

0 10 20 30 40 50 60 70

23.4 28.5 35.1 40.6 45.2

4.6 9.1 16.6 25.4 62.2

% Sterile NOT 100%
Reduced Fertility ≠ Sterility
Components of Infertility (Lack of Live Births)

- Sterility
- Pregnancy Loss

Leridon Hum Reprod 2008
SAB/ 1000 live births

Age

<15 339 296 186 138 172 275

MMWR 2013 / 62(ss08);1-44
How is Menopause Diagnosed?

1. FSH > 30 IU/mL
2. LH > 20 IU/mL
3. Spontaneous amenorrhea for 12 months
4. Anti-mullerian hormone <0.25 ng/mL
5. Vasomotor symptoms
Perimenopause characterized by:

- Menstrual irregularity
- Increasing risk of endometrial hyperplasia
- Vasomotor instability
- Duration of > 6 years
- Unpredictable fertility
Bleeding Patterns in the Later Reproductive Years

1. Heavy bleeding
2. Light bleeding
3. Frequent bleeding
4. Infrequent bleeding

A. 1 and 3
B. 2 and 4
C. All above
D. None above
Abnormal Uterine Bleeding

- More common during the later reproductive years
- Increased risk of
  - Endometrial hyperplasia & cancer
- Impacts
  - Quality of life
  - Productivity
One strategy for AUB

• LNG-IUS 52 mg (Mirena)
  • Reduction in bleeding at 1 year
    • 75%-95%
  • Anemia reduction
    • LNG-IUS > combined hormonal contraceptives or NSAIDs
• Can also treat endometrial hyperplasia
Combined Hormonal Contraception

• Age (alone) ≠ Contraindication
• Consider lower estrogen

• Benefits
  • Provides cycle control
  • Decreased menstrual flow
  • Improves vasomotor instability
  • Protects bone
Case 2

• 50 yo G2P2 with
  • Migraine headaches without aura
  • E/P oral contraceptive for heavy menses & contraception
  • BMI 42 kg/m²
  • BP 135/90 mm Hg
  • Takes Topiramate
Which of the following would be the best management option?

1. LNG IUS (Mirena)
2. Copper IUD (Paragard)
3. E/P oral contraceptive
4. Progestin injection
5. Barrier contraception
Medical conditions common in the later reproductive years impacting contraception

- Diabetes with vascular disease or 20+ years duration
- Hypertension
- Breast cancer
- Thromboembolic events (DVT/PE)
- Hyperlipidemia
Medical conditions common in the later reproductive years impacting contraception

- Migraine +/- aura
  - Relative decreased efficacy of CHC & implant with topiramate

- Smoking
- Unexplained vaginal bleeding
- Obesity

Deaths per 100,000 women

- Overall: 12.7
- Under 20 yo: 7.1
- 25-29 yo: 8.1
- 30-34 yo: 9.4
- > 35 yo: 12.1
- 20-24 yo: 32.3

US DHHS Women’s Health USA 2010
Vasomotor Symptoms

- Can occur for 6 or more years
- Estrogen (need progestin endometrial protection)
  - Most effective therapy
  - Physiologic dosing
  - Contraindications

CHC
HT
Obesity and Contraception

• Concerns about efficacy of OC, patch, ring and implant in obese women
  • Data is inconsistent
  • If less effective, the difference is minimal
    • *Obstet Gynecol*. 2010 Nov;116(5):1206-7
      *Hormonal contraceptives in overweight or obese women.*
  • WHO and CDC more concerned about additive VTE risk
    • Most methods rated “1”
    • Estrogen containing methods rated “2”
  • Consider age and comorbidities
Contraception and Bariatric surgery

• Restrictive or banding procedures
  • Do not alter contraceptive options

• Bypass procedures (Roux en Y or jejunoileal bypass)
  • Are not compatible with OC’s
  • Postoperative risk of VTE
    • Medical eligibility criteria for contraceptive use 2010
      www.cdc.gov/reproductivehealth/usmec
Which is the best emergency contraception for women with BMI > 30 kg/m²?

• 1. levonorgestrel (Plan B)
• 2. ulipristal (Ella)
• 3. copper IUD (Paragard)
• 4. none; emergency contraception is contraindicated in these women
Emergency Contraception in Obese Women

- Meta-analysis of 2 RCT comparing efficacy of EC (LNG vs. UPA)
  - In comparison to women with BMI < 25 kg/m²
    - Women with BMI 25-30 kg/m² have a 1.5 fold increase risk of pregnancy
    - Women with BMI >30 kg/m² have a 3.6 fold increased risk of pregnancy
  - In summary, LNG EC does not work well in overweight and obese women, UPA EC may be OK in the overweight group
- Most efficacious EC is Copper IUD
  - Glasier et al, Contraception, 84(2011)363-7
Progestin Only Contraception

- Etonogestrel implant
  - Ovarian suppression
  - Cyclical conditions
  - Lower removal rate
  - $\text{BMI} > 30 \text{ kg/m}^2$
- Progestin only pills
- LNG-IUS
- Depot medroxyprogesterone acetate

• Casey Contraception 2013
Which of the following women are poor candidates for LARC?

1. adolescents
2. women with high BMI
3. women with elevated risk of VTE
4. women with history of unplanned pregnancy on Ocs
5. all of the above are good candidates
The case for LARC- IUC

• No association with infection or infertility
  • Classic 2001 study: association of infertility and + chlamydial antibodies
    • Hubacher NEJM 2001: 345(8): 561-7

• No increased difficulty with insertion in most women
  • Misoprostol not needed
  • NSAIDs, paracervical blocks may be helpful

• STI screening (chlamydia/GC) for adolescents at IUD insertion

• IUD expulsion rate: 3-5% in all users, 5-22% in adolescents
  • Prior expulsion not a contraindication to another IUD placement

• Adolescents and LARC: ACOG Committee Opinion #539, Oct 2012
The case for LARC-Implant

- Lower progestin than OC, DMPA
  - No effect on bone mineral density
  - No effect on lactation

- Change in bleeding pattern is expected throughout 3 years of use
  - Ranges from amenorrhea → prolonged bleeding
  - Most common reason for method discontinuation
  - NSAIDs, Ocs used for treatment, no RCT support
  - Mayo RCT of Doxycycline vs. placebo ongoing following support from retrospective study
    - Adolescents and LARC: ACOG committee opinion #539, Oct 2012
    - Casey et al, Management of ESI related bleeding, JRM 2014
CONTRACEPTION

Fertility

Impact
It’s not over . . . .

Last ovulation may be with last bleeding cycle.

Until . . . . . . . it’s over
When can we stop contraception?

1. 50
2. Any age if hot flashes present
3. 52
4. 55
5. None of the above
Case 3

• 48 yo G3P3 with hot flashes
• Multiple abdominal surgeries
• Menorrhagia
• Wants longterm contraception
Distribution of Age at Menopause

50% age 51.4

95% Age 55
Managing the menopausal transition

• May stop contraception by age 55
  • To prevent virtually all conceptions

• May stop earlier
  • To avoid virtually all live births
  • High proportion of SAB
    • Speroff, Clin Gyn Endo & Infert, 6th edition

• Consider need for contraception AND endometrial protection with ET
Natural Cessation of Ovarian Function

Not Like This

More Like This
Resources


• North American Menopause Society Recommendations for Clinical Care of Midlife Women, Menopause vol 21# 10 Sept 2014
Thank you!

• Management of Contraceptive Side-effects?
• Other questions?
Birth control pills should really be made for men. It makes more sense to unload a gun than to shoot a bulletproof vest.

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