LARC!
Long Acting Reversible Contraception
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http://www.unnaturalcauses.org/resources_video.php?res_id=70
Unintended Pregnancy

- Language is changing - “wanted later or unwanted”
- In 2011 45% of pregnancies
  - Improved from 51% in 2008
  - Largest Decline in Teens
- Highest Rates
  - 18-24 YO
  - <100% federal poverty level
  - Non-Hispanic Black
  - No high school graduation
  - Cohabiting

Why?

- Siloed care
- Lack of access
- Culture and family background
- Lack of information
- Knowledge of importance of health and reproduction
Why?

- Race
- Society or physician judgement of pregnancy
- Contraceptive coercion
One Key Question

- Would you like to become pregnant in the next year?
  - Yes
  - No
  - Unsure
  - OK either way
Disclosure Statement

I am a Nexplanon trainer through Merck
Objective

- Explain methods of reversible contraception
- Indications and Contraindications
- Advantages and Disadvantages
- Practice Pearls
What is a LARC?

- Lasts 3 years or greater
- Easy to discontinue/remove
- Does not rely on patient for efficacy
Informal Poll

- Who places levonorgestrel IUDs?
  - Mirena
  - Kyleena
  - Skyla
  - Liletta

- Who places copper IUDs?

- Who places etonogestrel implants? (Nexplanon)
LARC

- L - Less Doctor Visits
- A - Almost All Women are Good Candidates
- R - Risk of Pregnancy is Low
- C - Continuation Rates are High
LARC Satisfaction and Continuation

- **High Satisfaction (79-89%)**
  - Higher than for non-LARCs

- **High Continuation**
  - 12 months 83-88%
  - 24 months 69-79%

- Most common reason for removal is pain, cramping, irregular or heavy bleeding

- **Failure rate all less than 1%**
  
  - *J Fam Pract.* 2015 Aug;64(8):479–84
How to start the conversation?

- Patients desire
- Patients experience
- Dispel misconceptions

**Bedsider**
- [https://www.bedsider.org/methods](https://www.bedsider.org/methods)
- Excellent patient information
HOW WELL DOES BIRTH CONTROL WORK?

Really, really well
- The Implant (Nexplanon)
- IUD (Skyla)
- 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

Okay
- 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 so well
- Withdrawal
- Diaphragm
- Fertility Awareness
- Condoms, for men and women

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 90 in 100 young women get pregnant in a year.
Misconceptions

- Difficult to combat
- Require education and time
- Try and figure out where the information is coming from
Common Ones I Hear

- I won’t be able to get pregnant
- You won’t be able to get it out
- I don’t want anything in my body
- I might get a pregnancy in my tube
- It will change sex/partner feels strings
- Concerns about continuing menses
- I might want to get pregnant again in 1 year
Adolescents

- AAP updated in 2014
  - Includes use of LARC for sexually active teens

- ACOG updated May 2018
  - No difference in complications
  - Reproductive Justice
  - STI screening/condom use

> ACOG Committee Opinion # 735, 5/18
> *Pediatrics*. Oct 2014, 134 (4) e1257-e1281
Contraindications of LARC

- Quickest and easiest is US Medical Eligibility for Contraceptive Use by the CDC (USMEC)
  - [https://www.cdc.gov/reproductivehealth/contraception/mmwr/mec/summary.html](https://www.cdc.gov/reproductivehealth/contraception/mmwr/mec/summary.html)

- Simplified Chart

- There is an app for that!
Levonorgestrel IUD

My love for you is like the IUD long lasting and dependable!
Contraceptive Advantages

- Highly effective
- Reversible
- Cost-effective long term
- No Estrogen
Non Contraceptive Advantages

- All data primarily based on 52 mcg
- Menorrhagia, dysmenorrhea
  - FDA Approved indication
- Anemia
- Endometrial hyperplasia
- Endometrial, Cervical, and Ovarian Cancer
Disadvantages

- Bleeding profile after insertion
  - 3-6 months of irregular bleeding
  - Periods become shorter and lighter after
  - No period in some

- Possible perforation
  - Higher if breastfeeding

- Expulsion
  - 3-6 %

- Ectopic Pregnancy
Breast Cancer?

- OCP increases
- Levonorgestrel IUD
  - Fixed increase in RR
- Etonogestrel Implant
  - No change in risk

- Contemporary Hormonal Contraception and the Risk of Breast Cancer. NEJM 2017; 377:2228-2239
- ACOG Practice Advisory 1/8/18
# Levonorgestrel IUD

<table>
<thead>
<tr>
<th>LARC</th>
<th>Dimension</th>
<th>Duration</th>
<th>Failure rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mirena</td>
<td>32 x 32 mm 4.4 mm in diameter</td>
<td>5 (7)</td>
<td>0.2%</td>
</tr>
<tr>
<td>Kyleena</td>
<td>28x30 mm 3.8 mm</td>
<td>5</td>
<td>0.2%</td>
</tr>
<tr>
<td>Skyla</td>
<td>28x30 mm 3.8</td>
<td>3</td>
<td>0.4%</td>
</tr>
<tr>
<td>Liletta</td>
<td>32x32 mm 4.4</td>
<td>4 (5)</td>
<td>0.2%</td>
</tr>
</tbody>
</table>
How to Start

- Informed consent
- Review CDC Medical Eligibility
  - Infection, cancer, structural abnormality, pregnancy
- Ensure not currently pregnant
  - Quick Start Algorithm from Reproductive Health Access Project
How to Start

- First 7 days of menstrual cycle
  - If not, back up contraception
  - Easier to insert in nullip
- At end of last form of contraception
- Postpartum
  - Immediately (less than 10 minutes)
  - >4 (6) weeks if not breastfeeding
Infection

- Routine screening based on CDC guidelines
  - Screening can occur at the same time as insertion
- If screen is positive or contract STI while in place, treat
- If suspected PID or STI at time of insertion, treat before inserting
- Development of PID while IUD is in place
  - Treat without pulling IUD

- U.S. Selected Practice Recommendations for Contraceptive Use, 2016
Increased PID risk with insertion?

- Slight increase within first 20 days of insertion
  - 0-2% with no infection
  - 0-5% with STI at time of infection
- No increased general risk
  - May decrease risk because of thickened cervical mucous
  - 1.6 cases in 1000 woman years of use

- ACOG Committee Opinion # 735, 5/18
Menarche to 20

- MEC category 2
  - Recommended with caution that advantages usually outweigh risk
- Expulsion
- Increased pregnancy
- STI risk
Postpartum and Breastfeeding

- Can be done up to 10 min after delivery of placenta
  - Not reimbursed in Kansas
  - Increased expulsion rate
- 6 weeks postpartum
  - Appropriate counseling on intercourse
- Breastfeeding
  - Increased risk of perforation out to 36 weeks
  - CDC and WHO category 2
Procedure

- Each applicator is different
- Product websites have videos
- Strongly encourage sample applicator prior to insertion
  - [https://hcp.mirena-us.com/mirena-insertion-instructions/](https://hcp.mirena-us.com/mirena-insertion-instructions/)
Procedure

- Bimanual exam
- Speculum exam
- Clean cervix/sterile gloves
- Tenaculum
- Sound
  - EMB, typical sound, dilator
  - 6 cm
- Insertion
- Trim Strings
Cost and Billing

Purchasing
- Verify insurance
- Look at clinic purchasing practice
- Patient assistance
  - http://www.archpatientassistance.com/
  - https://www.lilettacard.com/

Codes
- Insertion 58300
- Removal 58301
Follow-Up

- String check?
- Follow up appointment
Pearls

- Pain during procedure
  - Lidocaine cervical block
    - 2018 study on 20 ml of 1% lidocaine in nullip
  - NSAID (Naprosyn)
  - Topical lidocaine

- Stenotic Cervix
  - During menses has not shown to help
  - Cervical dilators, os finder, 5 mm Denniston dilator
  - Misoprostol
    - 400 mcg 2-6 hours prior to appointment
Pearls

- String issues
  - Leave long!!!!

- Strings are not present
  - Common problem 5-15%
  - 98% of the time still in uterine cavity

- How to locate
  - Xray (barium), ultrasound
  - Metal bands to discriminate
Pearls

- How to remove if strings are not present
  - Misoprostol
  - Ultrasound
  - Intracervical devices
    - Cervical brush
    - Alligator clamp
    - Emmett Thread Retriever
    - Use Ultrasound to find
Pearls

- Perforation
  - Most likely to occur while sounding
  - Use disposable sound/EMB
  - 0.8-2.1 per 1000 women
  - Typically diagnosed when strings are not found
  - Refer for laparoscopic removal
Bleeding After Insertion

- Work up any concerning bleeding prior to insertion
- Confirm placement
- Rule out pregnancy
- Reassurance and education
- Naproxen 500 mg bid x 5 days
- Combined oral contraceptives?
- Will improve after 3-6 months
Pregnancy

- Rule out ectopic
- Pull IUD if strings are seen
  - Risk of SAB
Copper IUD

- 32x36 mm/ 4 mm insertion device
- Good for 10 years
- Can be used for emergency contraception within 5 days
- No systemic hormones
- Efficacy
  - 0.8% chance of unintended pregnancy in first year
Advantages/Disadvantages

- **Advantages**
  - Maintain cycles
  - Decrease cervical cancer and possibly endometrial cancer

- **Disadvantages**
  - Increased risk of PID
  - Heavier, longer, more painful periods for the first 6 months
  - After 6 months similar cycles
Insertion

- Device is loaded and arms are loaded at time of insertion and should not stay in device longer than a few minutes
- Applicator location within uterus is different
- [https://hcp.paragard.com/Resources/videos.aspx](https://hcp.paragard.com/Resources/videos.aspx)
Pearls

- Management of bleeding
  - Scheduled NSAIDS
Etonogestrel Implant

- Nexplanon (Implanon)
- 40 mm x 2 mm
- FDA mandated class for insertion and removal
- 0.05% risk of unintended pregnancy in first year
- FDA approved for 3 years
  - Effective up to 5 years
Patient Selection

- **USMEC recommendations**
  - **Absolute contraindications**
    - Pregnancy, liver disease, hormone sensitive cancers, thromboembolic disorder, atypical bleeding
  - **Considerations**
    - Depression, Hypertension
    - Body weight (130%) per package insert
    - Post marketing research shows no impact
      - *Obstet Gynecol.* 2012;120:21-26
Advantages

- Contraceptive advantages of other LARCs
- Less blood loss from menses compared to no contraception
- No change in bone mineral density
Disadvantages

- Changing in bleeding pattern
  - Primary reason women discontinue (11%)
    - 22% amenorrhea
    - 18% increased/prolonged bleeding
      - More common in women with heavier BMI
      - Bleeding pattern in initial 3-6 months will not change
      - Average bleeding 17 out of 90 days
Disadvantages

- Site Reaction
- Depression
- Weight gain
  - 2.8 lb in 1\textsuperscript{st} year
  - 3.7 lb total by 2\textsuperscript{nd} year
Postpartum and Breastfeeding

- **Postpartum**
  - 21-28 days

- **Breastfeeding**
  - 28 days
  - No impact on breast milk production
  - Small amounts present in breast milk
Billing and Coding

- CPT codes
  - 11981 - Insertion
  - 11982 - Removal
  - 11983 - Insertion and Removal
  - J7307 – Nexplanon drug code

- Drug website and patient assistance
  - https://www.merckconnect.com/nexplanon/dosing-administration/
Pearls

- **Bleeding**
  - Primary reason women want to discontinue
  - OCP - temporary effectiveness
  - NSAIDS - Mefenamic Acid 500 mg tid x 5 days
  - Doxycycline 100 mg tid x 5 days

- *Obstet Gynecol Clin North Am. 42(4): 593-603*
Questions?
Resources

Provider
- https://beyondthepill.ucsf.edu/
- https://www.cdc.gov/reproductivehealth/contraception/mmwr/spr/summary.html
- http://www.who.int/reproductivehealth/topics/family_planning/en/

Patient
- https://youngwomenshealth.org/
- https://www.sexandu.ca/
- https://www.bedsider.org/