INTRAUTERINE DEVICES WORKSHOP

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We are Family Medicine 2022

Disclosures

- Non-Declaration Statement
  - *I have no relevant relationships with ineligible companies to disclose within the past 24 months*

Objectives

- 1. Review the indications for the selection of an intrauterine device (IUD).
- 2. Describe the contraindications and necessary patient education before choosing an IUD.
- 3. Given a patient scenario, correctly select an appropriate form of contraception.
- 4. Correctly perform an IUD insertion and removal.

Unintended Pregnancy in the U.S.

- Higher in the U.S. than in most developed countries
- 45 unintended pregnancies for every 1000 people aged 15-44 (mostly consistent over past few years)
- In 2019, 30.6% of all pregnancies in the US were unintended
  - *This includes: never having plans to become pregnant or pregnancy desired but not at this time*
- Highest in low socioeconomic areas and low education regions but not exclusive to these

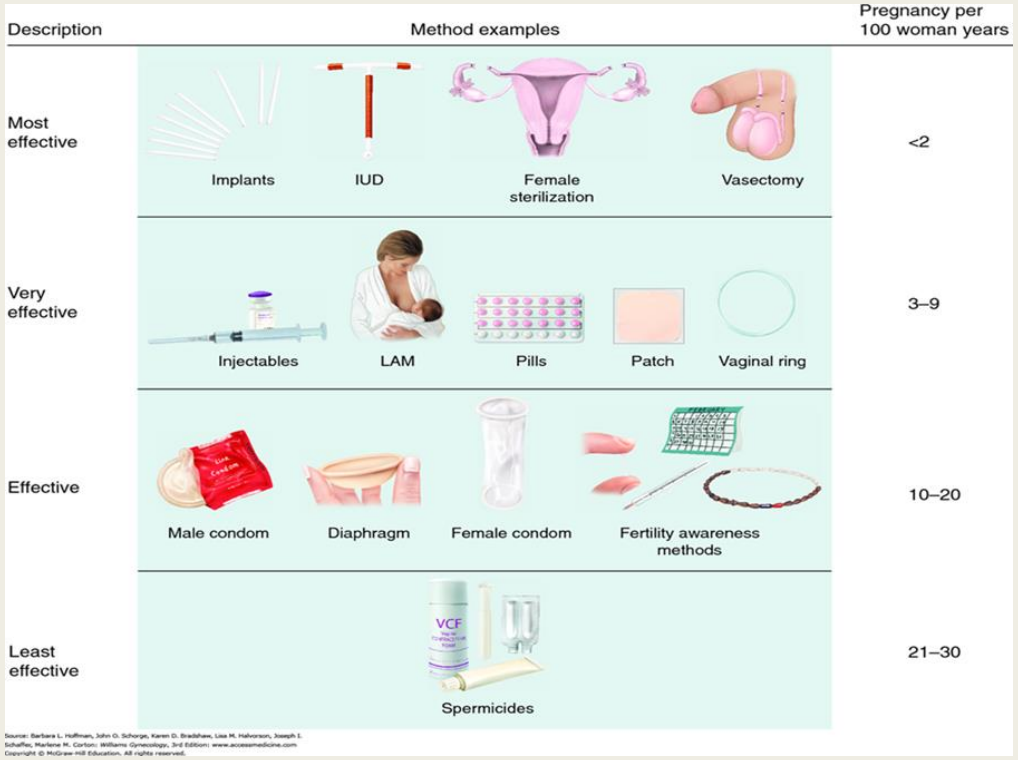
Effects of Unintended Pregnancy

- Around $21 billion in cost in 2019 to the medical industry
- Increased burden on families already in poverty
- Increased rates of high school and college drop out
- Increased rates of domestic violence when proceeding with an unintended pregnancy
- 42% end in termination with trends increasing

Counseling

- Who?
  - *Every patient, every visit*
- How?
  - *Would you like to become pregnant in the next year?*
  - *Do you have any children now?*
  - *Do you want any more children?*
    - If you do, when do you plan to have more children?

Contraception

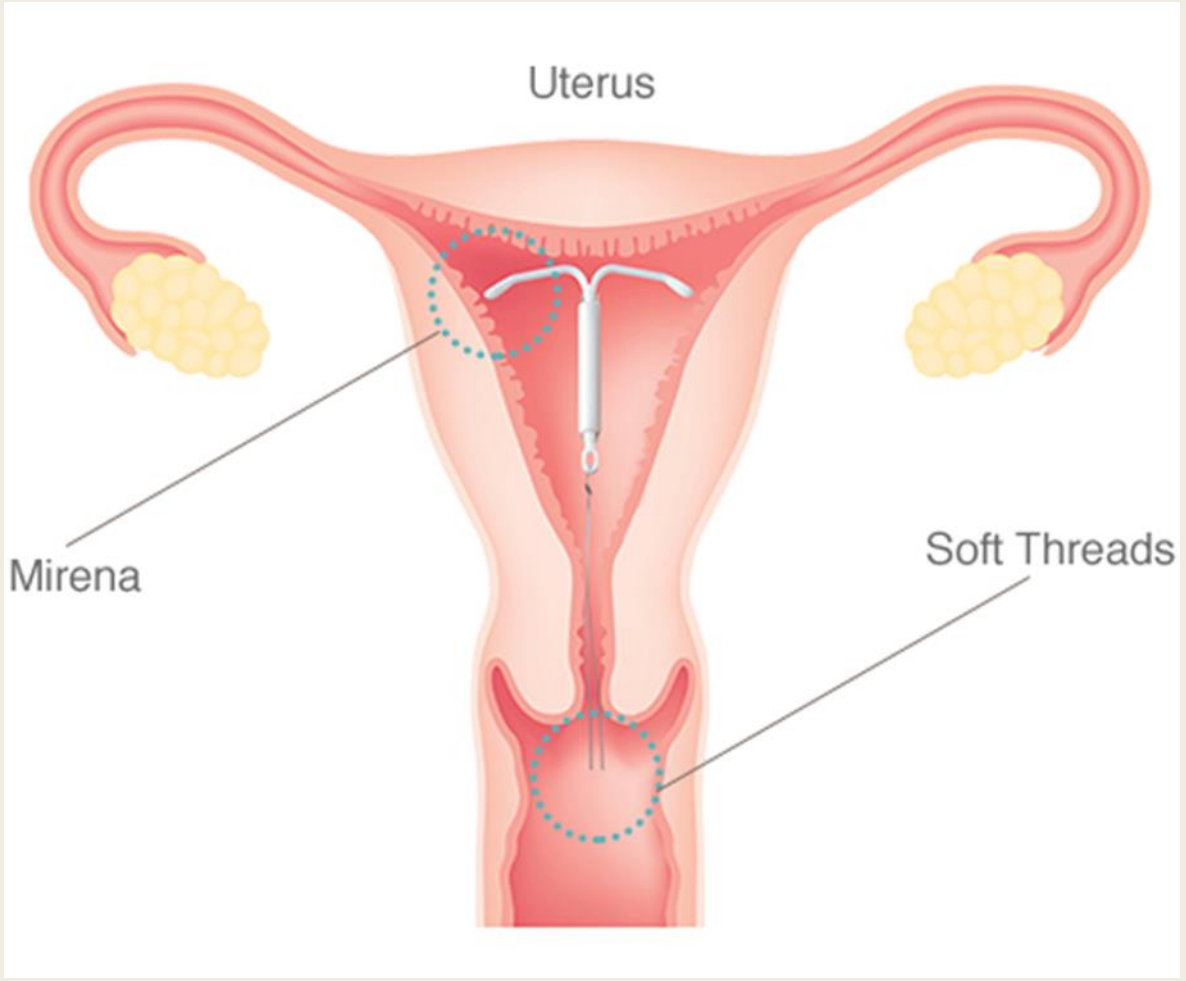


Contraception Tier Rating

- 1st tier: MOST effective, easily used. Failure rate less than 2% annually.
- 2nd tier: requires patient to do something (daily, weekly, monthly). Failure rate at 3-9% annually.
- 3rd tier: effected by patient knowledge and use (condoms, natural family planning). Failure rate 10-20% annually.
- 4th tier: highest failure rate at 21-30%
- **All are influenced by “correct use” as well as time

Tier 1 Contraceptives

- Include the LARC, the implant, and sterilization (both male and female)
- Worldwide, the LARC is widely utilized
- Cost is an issue for all of these methods
- Hesitancy to discuss with patient additional barrier
- Concerns over regret for sterilization
- Time and follow up


Uterus
Mirena
Soft Threads

LARCs

- 4 hormone containing devices, 1 non-hormonal
  - *Mirena, Skyla, Liletta, and Kyleena (all levonorgestrel devices or LNG-IUS)*
    - Works by releasing hormone through permeable membrane
    - This causes the endometrium to be too thin to support a pregnancy, limiting ovulation, thickening cervical mucus, and possibly decreasing tubal motility
    - From 3-5 years approved (works longer in most cases)
  - *Paragard (non hormonal)*
    - Works by causing local inflammation in uterus---releases spermicidal enzymes
    - If implantation does occur, enzymes work against fertilized ovum
    - Endometrium hostile
    - 10 years approved (may last up to 20)

LARC Absolute Contraindications

- For ALL:
  - *Pregnancy*
  - *Abnormal uterine cavity*
  - *Acute PID*
  - *Recent endometritis (3 months)*
  - *Abnormal bleeding/cervical malignancy*
  - *Untreated acute cervicitis/vaginitis*
- ParaGard only: Wilson's disease, copper allergy
- Levonorgestrel devices: Acute liver disease or liver tumor, Progestin sensitive cancers

LARC Relative Contraindications

- LNG-IUS
  - *Coagulopathy*
  - *Atypical Migraines*
  - *CVA/MI*
  - *Poorly controlled HTN*
- Either type of LARC:
  - *Taking anticoagulants (caution on insertion)*

LARC Infections

- Less than 1 in 100 people develop infections with first 20 days
  - *Usually due to cervical infection undiagnosed*
- If high risk patient for STI, screen at time of IUD insertion
- Some infections due to contamination from normal flora
- LARC in place doesn't increase risk of STI
- Evidence of infection does not necessitate removal!
- Special case: *Actinomyces* infection requires removal if symptomatic

Indications

- All types:
  - *Pregnancy prevention*
- Emergency Contraception:
  - *Paragard (within 5 days of unprotected act)*
- Control of Heavy Menstrual Bleeding:
  - *Mirena IUD*

Indications

- LNG-IUS Benefits
  - *Endometriosis treatment*
  - *Dysmenorrhea improvement*
  - *Endometrial protection during Hormone Replacement*
  - *Decreased menstrual flow*
  - *Endometrial protection against hyperplasia*
  - *Gender dysphoria*

Parity Concerns

- Also a change (previously not done in nulliparous patients)
- No changes in infection outcomes
- No evidence of fertility issues
- Expulsion rates are no different than those with prior uterine occupancy
- This includes the adolescent population

LARC Placement Timing

- Can be done immediately following 1st trimester abortion
- Can also be done immediately following 2nd trimester abortion but if uterine cavity is longer than 12 cm, will need to have ultrasound for placement
- Expulsion rates slightly higher
- After term delivery, can be done immediately but much higher rates of expulsion
  - *Usual standard is 2 weeks*
- Note, 5% of IUDs are expelled in first year regardless of placement timing
- Cervix is softest toward end of menses but can be done at any time

LARC Counseling Information

- STI risks
- Bleeding changes
- String checks
- Perforation/migration risks
  - *If migrates into uterine wall, laparoscopic surgery*
  - *If not, hysteroscopic removal*
- Pregnancy concerns:
  - *Remove before 14 weeks if possible*
  - *Abortion rates around 54% if device is left in place*
  - *Ectopic concerns*

Return to Fertility

- LNG-IUS
  - *80% of patients desiring pregnancy achieved w/in 1 year of removal on highest dose LNG-IUS*
- Copper-IUD
  - *Considered immediately reversible*

Basic Insertion Instructions

- Confirm no pregnancy/contraindications
- Obtain consent
- Perform bimanual exam to assess size/position of uterus
- Assess cervix for contraindications
- Apply antiseptic to cervix
- *Will discuss option for anesthesia*
- Place tenaculum (anterior lip if anteverted, posterior lip if retroverted)
- Sound uterus (minimum of 6 for Mirena)

Specific for LNG-IUS

- Set flange to depth of sound
- Set arms inside loader
- Use tenaculum to align uterus with cervical canal
- Insert loader to 1.5-2 cm away from flange and deploy arms
- Wait 10 seconds
- Insert loader to flange depth
- Retract loader
- Cut strings to 2-3 cm, perpendicular to cervix

Specific to Paragard

- Must insert within 5 minutes of loading device
- Load device so that copper portion is outside of inserting tube
- Place stabilizing rod inside of inserting tube
- Line up the device with the measuring card inside of the kit
- Set the flange using the measurements on the card
- Deploy the device until the flange is at the os
- Hold the stabilizing rod steady and pull the insertion tube back toward you until the arms “pop” out
- Gently re-advance the tube until contact with the arms are made to ensure placement
- Remove the rod, then the tube

Final Insertion Instructions

- Cut strings to 2-3 cm, perpendicular to threads
- Remove tenaculum and ensure hemostasis
- Remove speculum
- Monitor patient for 15 minutes for bleeding/pain/vasovagal response
- Final patient counseling
- Documentation of procedure
- Make sure you have documented lot number and expiration
- Give patient card for either device

Take Home Points

- LARCs are have multiple indications for many patient populations
- Contraindications are straightforward and limited
- LARC insertion can be performed in a multitude of settings
- For patients seeking conception, return to fertility can happen relatively quickly

References

- American College of Obstetrics and Gynecologists. ACOG Practice Bulletin 121: Long-acting reversible contraception: Implants and intrauterine devices
- American College of Obstetrics and Gynecologists. ACOG Practice Bulletin 195: Prevention of Infection after Gynecologic Procedures.
- U.S. Medical Eligibility Criteria for Contraceptive Use
- https://www.mirenahcp.com
- https://hcp.paragard.com

Thank you and Questions

- Questions:
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