Long-Acting Reversible Contraception: First Line Care for Adolescents

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Objectives

• Review lessons learned about LARC & teens from the Contraceptive Choice Project

• Describe the long-acting reversible contraception (LARC) methods available to adolescents

• Identify barriers and dispel common myths that impact LARC use among adolescents

• Review CDC US Medical Eligibility Criteria for LARC use in teens

• Review new recommendations from the CDC Selected Practice Recommendations for initiation of LARC methods
Current Contraceptive Options:
All Birth Control is not Equal

<table>
<thead>
<tr>
<th>Extremely Effective</th>
<th>Very Effective</th>
<th>Moderately Effective</th>
<th>Effective</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt;99%</td>
<td>~91%–99%</td>
<td>~78%–98%</td>
<td>~72%–99%</td>
</tr>
</tbody>
</table>

- Sterilization
- Long-Acting Reversible Contraception:
  - Intrauterine Devices (IUDs)
  - Implants
- Pills
- Ring
- Patch
- Injectable
- Male Condom
- Withdrawal
- Diaphragm
- Female Condom
- Fertility awareness methods
- Spermicide
IUDs as effective as sterilization ... but immediately reversible

5-year gross cumulative failure rate

- LNG IUS (Mirena): 0.5
- CuT 380 (Paragard): 1.4
- All Sterilization: 1.3

Andersson et al. Contraception 1994;49:56
What are Teens Using for Contraception?

U.S. teens 15-19 yrs-CDC NSFG 2006-2008

<table>
<thead>
<tr>
<th>Method</th>
<th>Extremely effective</th>
<th>Very effective</th>
<th>Moderately effective</th>
</tr>
</thead>
<tbody>
<tr>
<td>OCP</td>
<td>54%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Condoms</td>
<td>23%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DMPA</td>
<td></td>
<td>9.40%</td>
<td></td>
</tr>
<tr>
<td>Withdrawal</td>
<td></td>
<td>4%</td>
<td></td>
</tr>
<tr>
<td>IUD</td>
<td></td>
<td>3.60%</td>
<td></td>
</tr>
<tr>
<td>Ring</td>
<td></td>
<td>3.60%</td>
<td></td>
</tr>
<tr>
<td>Patch</td>
<td></td>
<td>1.70%</td>
<td></td>
</tr>
</tbody>
</table>
Most Women Forget Pills

Potter, L. et all. Family Planning Perspectives, 28:154-158, 1996
What birth control are teens using?

- 69% Very effective
- 3.6% Extremely effective

U.S. teens 15-19 yrs-CDC NSFG 2006-2008
What birth control would teens choose?

72% Extremely effective
28% Very effective

Of Teens Choosing LARC...
What Do Teens Choose?

<table>
<thead>
<tr>
<th></th>
<th>14-20 y/o</th>
<th>14-17 y/o</th>
<th>18-20 y/o</th>
</tr>
</thead>
<tbody>
<tr>
<td>IUD</td>
<td>52%</td>
<td>35%</td>
<td>61%</td>
</tr>
<tr>
<td>IMPLANON</td>
<td>48%</td>
<td>65%</td>
<td>39%</td>
</tr>
</tbody>
</table>

LARC has HIGHEST Satisfaction

<table>
<thead>
<tr>
<th>Method</th>
<th>Extremely effective (&gt;99%)</th>
<th>Very effective (91% typical use)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LARC</td>
<td>82%</td>
<td>52%</td>
</tr>
<tr>
<td>Short acting</td>
<td>86%</td>
<td>80%</td>
</tr>
<tr>
<td>Mirena IUD</td>
<td>80%</td>
<td>78%</td>
</tr>
<tr>
<td>Paragar IUD</td>
<td>54%</td>
<td>54%</td>
</tr>
<tr>
<td>Implanon</td>
<td>54%</td>
<td>52%</td>
</tr>
<tr>
<td>DMPA</td>
<td>42%</td>
<td></td>
</tr>
<tr>
<td>OCPs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ring</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Patch</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Piepert JF et al. Obstet Gynecol May 2011
LARC has HIGHEST Continuation

- LARC: 86%
- Short Acting: 55%
- Mirena IUD: 88%
- Paragard IUD: 84%
- Implanon: 83%
- DMPA: 57%
- OCPs: 55%
- Ring: 54%
- Patch: 49%

Extremely effective (>99%)
Very effective (91% typical use)

Piepert JF et al. Obstet Gynecol May 2011
Pregnancy Rates in Sexually Active Teens

What is LARC?

- Long-Acting
- Reversible
- Contraception
Long Acting Reversible Contraception (LARC) = IUDs & Implants

- Most effective methods: >99%
- Safest
  - No estrogen
  - Contraindications rare
- Highest patient satisfaction
- Highest continuation rates
- Long-term protection (3-12 years)
- Rapid return of fertility
- Most cost effective
- Least likely to be used by teens

Levonorgestrel IUD (Mirena®)

- 20 mcg levonorgestrel/day
- Progestin-only method
- 5 years use
- Cost: ~$300–$700

Bleeding pattern:
- Light spotting initially:
  - 25% at 6 months
  - ~10% at 1 year
- Amenorrhea in:
  - 44% by 6 months
  - 50% by 12 months

Trussel J. *Contraceptive Technology*. 2007;
Copper T IUD: Paragard®

- Copper ions
- No hormones
- 12 years of use
- Cost: ~$150-$475
- 99% effective as EC

Bleeding Pattern:
- Menses regular
- May be heavier, longer, crampier for first 6 months

### Which IUD Is the Best Choice?

<table>
<thead>
<tr>
<th>Copper T IUD (Paragard)</th>
<th>LNG IUD (Mirena)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Want regular periods</td>
<td>• OK w/irregular bleeding</td>
</tr>
<tr>
<td>• Want no hormones</td>
<td>• OK w/amenorrhea</td>
</tr>
<tr>
<td>• No h/o dysmenorrhea</td>
<td>• H/O dysmenorrhea</td>
</tr>
<tr>
<td>• No h/o menorrhagia</td>
<td>• H/O menorrhagia</td>
</tr>
</tbody>
</table>
Implant: Nexplanon®

- Progesterone only (etonogestrel)
- Effective for 3 years
- Cost: ~$300–$600
- Mechanism: Inhibits ovulation
- Bleeding pattern:
  - Amenorrhea (22%)
  - Infrequent (34%)
  - 11% stop due to frequent bleeding

Dispelling Myths

When providers or patients hold misperceptions about the risks associated with contraception...

Teens’ choices are unnecessarily restricted
IUDs Do NOT Cause PID

- PID incidence for IUD users similar to that of general population
- Risk increased only during first month after insertion, still extremely low (1/1000)
- Screen for GC/CT in at risk teens
  - In Asx teens: Recommendation is to screen and insert same day
  - No need to wait for result to insert unless mucopurulent cervicitis or known exposure
- PID is NOT an indication for IUC removal
- GC/CT NOT an indication for IUC removal

IUDs Do Not Cause Infertility... Chlamydia Does!

• 2000 women case-control
• IUD users NOT more likely to have infertility than gravid controls (OR = 0.9)
• Women with CT antibodies more likely to be infertile (OR = 2.4)
• IUD use is not related to infertility
• Chlamydia is related to infertility
• Similar results in multiple studies

Almost ALL TEENS Can Use IUDs

WHO CAN USE IUDs:

- Teens?  
  • YES!
- Never been pregnant?  
  • YES!
- Multiple partners?  
  • YES!
- History of STD?  
  • YES!
- History of PID?  
  • YES!
- History of ectopic?  
  • YES!

AAP: LARC and Teens

• “Given the efficacy, safety, and ease of use, LARC methods should be considered first-line contraceptive choices for adolescents.”

• “Pediatricians should be able to educate patients about LARC methods...”

ACOG: IUDs and Teens

• “Intrauterine devices are safe to use among adolescents.”
• “Intrauterine devices do not increase an adolescent’s risk of infertility.”
• “Intrauterine devices may be inserted without technical difficulty in most adolescents and nulliparous women.”
ACOG: LARC and Teens

• “With top-tier effectiveness, high rates of satisfaction and continuation, and no need for daily adherence, LARC methods should be first-line recommendations for adolescents.”

• “Health care providers’ concerns about LARC use by adolescents are a barrier to access.”
## CDC: LARC and Teens

### Key:

1. No restriction (method can be used)
2. Advantages generally outweigh theoretical or proven risks
3. Theoretical or proven risks usually outweigh the advantages
4. Unacceptable health risk (method not to be used)

<table>
<thead>
<tr>
<th>Condition</th>
<th>Sub-condition</th>
<th>Combined pill, patch, ring</th>
<th>Progestin-only pill</th>
<th>Injection</th>
<th>Implant</th>
<th>LNG–IUD</th>
<th>Copper–IUD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td></td>
<td>I</td>
<td>C</td>
<td>I</td>
<td>C</td>
<td>I</td>
<td>C</td>
</tr>
<tr>
<td>Menarche to &lt;40=1</td>
<td>Menarche to &lt;18=2</td>
<td>Menarche to &lt;18=1</td>
<td>Menarche to &lt;20=2</td>
<td>Menarche to &lt;20=2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>≥40=2</td>
<td>18-45=1</td>
<td>18-45=1</td>
<td>18-45=1</td>
<td>≥20=1</td>
<td>&gt;20=1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

CDC US Medical Eligibility Criteria MMWR 2012
IUDs Have VERY FEW Contraindications

- Current PID
- Current untreated mucopurulent cervicitis
- Current (known) untreated gonorrhea, or chlamydia
- Post abortion/partum infection in past 3 mo.
- Current or suspected pregnancy
- Anatomically distorted uterine cavity
- Wilson’s disease (Paragard)
  - Other: Uncommon issues for teens
    - Known cervical or uterine cancer
    - Known breast cancer (Mirena only)
    - Genital bleeding of unknown etiology
Implant: Only ONE Contraindication

- Current breast cancer
- Important to know about class labeling of implant with CHC by FDA.
IUDs & Implants are a **USMEC 1/2** for **ALL** of the following conditions:

- Nulliparity
- Adolescence
- CIN
- Obesity
- Postpartum
- Breastfeeding
- Diabetes
- HIV
- Depression
- Stroke/DVT
- PID (continuation)
- STI (continuation)
Initiation of **IMPLANTS**: CDC SPR

- **EXAM/TESTS** needed prior to insertion: NONE
- **TIMING**: ANYTIME (including postpartum)
  - Waiting for menses is not necessary
  - Switching from another method=> Back-up x 1 week
  - Quick start
    - Perform Urine pregnancy test- if negative => insert
    - Recommend back-up method for 1 week
    - Repeat Pregnancy test in 2-4 weeks
  - “For contraceptive methods other than IUDs, the benefits of starting to use a contraceptive method likely exceed any risk, even in situations in which the health-care provider is uncertain whether the woman is pregnant.” CDC US SPR

CDC U.S. Selected Practice Recommendations for Contraceptive Use MMWR 2013
Initiation of **IUDs**: CDC SPR

- **EXAM/TESTS** needed prior to insertion:
  - Bimanual exam to assess size and position of uterus
  - Cervical inspection to assess for signs of infection
  - STD screening per CDC guidelines
    - “Screening can be performed at the time of IUD insertion and insertion should not be delayed” --CDC SPR
  - **NOT** indicated: Hb/Hct, CBE, Pap
- **TIMING**: **Anytime** it is reasonably certain that a teen/woman is not pregnant
  - IUDs DO NOT need to be inserted on menses
How To Be Reasonably Certain that a Woman Is Not Pregnant

- ≤7 days after the start of normal menses
- Has not had sexual intercourse since the start of last normal menses
- Has been correctly and consistently using a reliable method of contraception
- ≤7 days after spontaneous or induced abortion
- Is within 4 weeks postpartum
- Is fully or nearly fully breastfeeding, amenorrheic, and <6 months postpartum
  - Mirena => Back-up x 1 weeks
  - Paragard => Immediately effective, no back-up needed

CDC U.S. Selected Practice Recommendations for Contraceptive Use MMWR 2013
IUD Insertion: What to Expect?
Implant Insertion: What to Expect?
LARC-Specific Resources

- LARC Locator
  - larc.arhp.org
- Bedsider
  - http://bedsider.org/methods
- Centers for Disease Control-US Medical Eligibility Criteria
- Centers for Disease Control-US Selected Practice Recommendations
- Contraceptive Technology
  - http://www.contraceptivetechnology.org/
- Managing Contraception
  - http://managingcontraception.com/
- The Contraceptive Choice Project
  - http://www.choiceproject.wustl.edu/
Provider Resources and Organizational Partners

- www.advocatesforyouth.org  Advocates for Youth
- www.aap.org  American Academy of Pediatricians
- www.aclu.org/reproductive-freedom  American Civil Liberties Union Reproductive Freedom Project
- www.acog.org  American College of Obstetricians and Gynecologists
- www.arhp.org  Association of Reproductive Health Professionals
- www.cahl.org  Center for Adolescent Health and the Law
- www.glma.org  Gay and Lesbian Medical Association
Provider Resources and Organizational Partners

• [www.guttmacher.org](http://www.guttmacher.org) Guttmacher Institute

• [janefondacenter.emory.edu](http://janefondacenter.emory.edu) Jane Fonda Center at Emory University

• [www.msm.edu](http://www.msm.edu) Morehouse School of Medicine


• [www.naspag.org](http://www.naspag.org) North American Society of Pediatric and Adolescent Gynecology

• [www.prh.org](http://www.prh.org) Physicians for Reproductive Health
Provider Resources and Organizational Partners

- [www.siecus.org](http://www.siecus.org)  Sexuality Information and Education Council of the United States
- [www.adolescenthealth.org](http://www.adolescenthealth.org)  Society for Adolescent Health and Medicine
- [www.plannedparenthood.org](http://www.plannedparenthood.org)  Planned Parenthood Federation of America
- [www.reproductiveaccess.org](http://www.reproductiveaccess.org)  Reproductive Health Access Project
- [www.spence-chapin.org](http://www.spence-chapin.org)  Spence-Chapin Adoption Services
Please Complete Your Evaluations Now

Adolescent Reproductive & Sexual Health Education Program