Immediate Postpartum LARCs
What is a LARC

- Long-acting reversible contraceptives
- Advantage: no ongoing effort, return of fertility is rapid
- Most effective form of reversible contraception and highest continuation rate among reversible methods
- 3 methods: two IUDs and single-rod contraceptive implant
Copper IUD

- T-shaped, polyethylene wrapped with copper wire
- Effects: Inflammation, inhibition of sperm migration and viability, change in transport speed of the ovum, damage/destruction of the ovum
- FDA approved for 10 years
- 1 year failure rate of 0.8/100 women, 10 year failure rate comparable to that of sterilization
- Adverse effects: abnormal bleeding and pain
Levonorgestrel IUD

- T-shaped with sleeve containing 52 mg of levonorgestrel on the stem
- Similar effects to copper IUD in addition to endometrial suppression and changes the amount and viscosity of cervical mucus
- Approved for 5 years
- 1 year failure rate of 0.2 per 100 women
- Adverse effects: HA, N, breast tenderness, depression, cyst formation
- Expulsion rate between 2-10% during first year
Contraceptive Implants

- 68 mg of etonogestrel surrounded by ethylene vinyl acetate copolymer skin
- Controlled release of etonogestrel over a period of 3 years
- Suppresses ovulation by altering H-P-O axis, thickens cervical mucus, alters endometrial lining
- Pregnancy rate of 0.05% → most effective reversible contraception
- Adverse effects: amenorrhea, infrequent/frequent/prolonged bleeding, HA, acne, breast pain, vaginitis, weight gain
Effectiveness of Family Planning Methods

Most Effective
- Implant: 0.05%
- Reversible Intrauterine Device (IUD): LNG - 0.2%, Copper T - 0.8%
- Male Sterilization (Vasectomy): 0.15%
- Permanent Male Sterilization (Abdominal, Laparoscopic, Hysteroscopic): 0.5%

How to make your method most effective
- After procedure, little or nothing to do or remember.
- Vasectomy and hysteroscopic sterilization: Use another method for first 3 months.

 Injectable: Get repeat injections on time.
- Pill: Take a pill each day.
- Patch, Ring: Keep in place, change on time.
- Diaphragm: Use correctly every time you have sex.

Injectable | Pill | Patch | Ring | Diaphragm
---|---|---|---|---
6% | 9% | 9% | 9% | 12%

Female Condom | Male Condom | Withdrawal | Sponge
---|---|---|---
18% | 21% | 22% | 24% parous women
12% nulliparous women

Fertility-Awareness Based Methods
- Spermicide
- Spermicide
- Spermicide

- The percentages indicate the number out of every 100 women who experienced an unintended pregnancy within the first year of typical use of each contraceptive method.

Condoms, sponge, withdrawal, spermicides:
- Use correctly every time you have sex.
- Fertility awareness-based methods: Abstain or use condoms on fertile days. Newest methods (Standard Days Method and TwoDay Method) may be the easiest to use and consequently more effective.

Condoms should always be used to reduce the risk of sexually transmitted infections.

Other Methods of Contraception
- Lactational Amenorrhea Method: LAM is a highly effective, temporary method of contraception.
- Emergency Contraception: Emergency contraceptive pills or a copper IUD after unprotected intercourse substantially reduces risk of pregnancy.

Why immediately postpartum?

- Reduction unintended and short interval pregnancy could be extended
- Unintended pregnancy accounts for 45-50% of pregnancies
  - At highest risk: low socioeconomic status, younger age, cohabitating, and minority
- Post placental insertion → IUD placement while still in delivery room, within 10 min
- Immediate insertion → 10 min-48 hrs., refers to before hospital discharge
- Interval insertion → 6 weeks or more after delivery

ACOG Committee Opinion 670
Pregnancies by Intention Status

More than half of pregnancies are unintended.

- Intended: 49%
- Mistimed: 31%
- Unwanted: 20%
40-57% women report having intercourse between 6 week pp visit

Ovulation occurs at a mean of 39 days postpartum in nonlactating women

1st year postpartum 70% pregnancies unintended

12%-49% postpartum adolescents have short interval pregnancies
About 43% of teens ages 15 to 19 have ever had sex.

More than 4 in 5 (86%) used birth control the last time they had sex.

Less than 5% of teens on birth control used the most effective types.

Nearly 1 in 5 births to teen mothers, ages 15 to 19, is a repeat birth.

About 183 repeat teen births occur each day in the US.

About 1 in 5 sexually active teen mothers use the most effective types of birth control after they have given birth.
Adolescent Mothers

- 42% of adolescents aged 15-19 years have had sexual intercourse
- Rarely select most effective methods
- 82% of adolescent pregnancies are unplanned
  - Accounts for 1/5th of all unintended pregnancies in the US

ACOG Committee Opinion 539 and CDC.gov
CDC Preventing Teen Pregnancy

**Implant**
- **How to use it:**
  - Placed by healthcare provider
  - Lasts up to 3 years
- **Chances of getting pregnant:** Less than 1 out of 100 women*

**IUD**
- **How to use it:**
  - Placed by healthcare provider
  - Copper IUD lasts up to 10 years
  - Progestin IUD lasts 3-5 years
- **Chances of getting pregnant:** Less than 1 out of 100 women*

**Pill**
- **How to use it:**
  - Take at the same time each day
- **Chances of getting pregnant:** 9 out of 100 women*

**Male Condom**
- **How to use it:**
  - Use correctly every time during sex
- **Chances of getting pregnant:** 18 out of 100 women*

**Most Effective**
- Condoms should always be used along with the preferred birth control to protect against sexually transmitted diseases.

*Number of pregnancies per 100 women using the method within first year of typical use.
Efficacy and Continuation

- Effectiveness >99%
- Single visit for placement, continuing does not require additional adherence or follow up
- Contraceptive CHOICE study: offered more than 9,000 women counseling on all contraceptive methods and provided free of charge
  - 75% chose LARC
  - 12 months→86% still using method compared to 55%
  - Women with LARC had highest satisfaction rates and lowest rates of unintended pregnancy

ACOG Committee Opinion 670
Benefits of Postpartum LARC

- Women known not to be pregnant
- Patient and clinician are in same place at same time
  - Avoids need for additional visit and potential loss of insurance coverage
- Many women have low postpartum follow up rates (10-40% do not attend)
  - 40-75% who plan on IUD do not obtain it
- Continuation rates
- Cost effective \( \rightarrow \) inability to pay, clinics not offering LARC, need for repeat visit

ACOG Committee Opinion 670
<table>
<thead>
<tr>
<th>Condition</th>
<th>Implant</th>
<th>LNG–IUD</th>
<th>Cu-IUD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 10 minutes after delivery of placenta</td>
<td>–</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>10 minutes after delivery of placenta to less than 4 weeks after delivery</td>
<td>1</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>More than 4 weeks after delivery</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Less than 1 month postpartum</td>
<td>2</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>More than 1 month postpartum</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

Abbreviations: LNG=levonorgestrel; Cu=copper; IUD=intruterine device.

*This section includes guidance based on the 2010 *U.S Medical Eligibility Criteria for Contraceptive Use* from the Centers for Disease Control and Prevention. Updates to these recommendations are available on the Centers for Disease Control and Prevention web site [http://www.cdc.gov/reproductivehealth/UnintendedPregnancy/USMEC.htm](http://www.cdc.gov/reproductivehealth/UnintendedPregnancy/USMEC.htm).

†Categories: 1=A condition for which there is no restriction for the use of the contraceptive method; 2=A condition for which the advantages of using the method generally outweigh the theoretical or proven risks; 3=A condition for which the theoretical or proven risks usually outweigh the advantages of using the method; 4=A condition that represents an unacceptable health risk if the contraceptive method is used.

‡Recommendations among breastfeeding women.

Timing and Technique

- Implant delivery room or any other time during stay before discharge
  - Technique does not differ

- Vaginal delivery
  - Best practice is to place in delivery room within 10 minutes of placental delivery in vaginal and cesarean births
  - Place manually or with a ring or Kelly forceps
  - Remove from inserter
  - Grasp IUD wings gently with ring forceps and placed at the fundus

ACOG Committee Opinion 670
Timing and Technique

- Cesarean Delivery
  - After initiating closure IUD is placed at fundus with inserter, manually or with ring forceps and strings placed manually or with forceps at cervix

- Contraindications: peripartum chorio, endometritis, puerperal sepsis

- Counsel of advantages, risks of expulsion, contraindications, and alternatives
### Annexure K

**JOB AID FOR POSTPLACENTAL IUCD INSERTION TECHNIQUE**

<table>
<thead>
<tr>
<th>Step</th>
<th>Task</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Be sure the woman has been consented.</td>
</tr>
<tr>
<td>2.</td>
<td>Be sure your supplies/equipment are ready.</td>
</tr>
<tr>
<td>3.</td>
<td>Complete Active Management 3rd Stage.</td>
</tr>
<tr>
<td>4.</td>
<td>Ask the woman if she is still willing for IUD insertion.</td>
</tr>
<tr>
<td>5.</td>
<td>Inspect the perineum for lacerations.</td>
</tr>
<tr>
<td>7.</td>
<td>Clean cervix and vagina TWICE.</td>
</tr>
<tr>
<td>8.</td>
<td>Grasp anterior lip of cervix with forceps.</td>
</tr>
<tr>
<td>9.</td>
<td>Hold the IUCD with forceps in a sterile packet.</td>
</tr>
<tr>
<td>10.</td>
<td>Insert forceps with IUCD through cervix to lower uterine cavity. Avoid touching vagina.</td>
</tr>
<tr>
<td>11.</td>
<td>Move hand to abdomen; place it on top of sterile towel over the fundus of uterus.</td>
</tr>
<tr>
<td>12.</td>
<td>Move IUCD + forceps upward until it can be felt at fundus. Follow contour of uterine cavity.</td>
</tr>
<tr>
<td>13.</td>
<td>Open forceps and release IUD at fundus</td>
</tr>
<tr>
<td>14.</td>
<td>Sweep forceps to side wall of uterus</td>
</tr>
<tr>
<td>15.</td>
<td>Slowly remove forceps — keep slightly open</td>
</tr>
<tr>
<td>16.</td>
<td>Stabilize uterus until forceps are out.</td>
</tr>
<tr>
<td></td>
<td>Allow the woman to rest. Complete records.</td>
</tr>
<tr>
<td></td>
<td>Perform infection prevention steps to process instruments.</td>
</tr>
<tr>
<td></td>
<td>Be sure she gets complete postpartum care. Provide post insertion instructions.</td>
</tr>
</tbody>
</table>
Expulsion

- Higher than for interval or post abortion insertions, vary by study
- Can be as high as 10-27%
- Theoretically lower for cesarean section insertion
- Counsel on increased expulsion risk and signs/symptoms of expulsion
- Replacement cost varies by insurance plan

ACOG Committee Opinion 670
Continuation Rate

- Study randomized to immediate IUD placement at cesarean delivery vs interval placement 6 weeks postpartum
- 6 months c/s vs 6 wk. pp → 83% vs 64%
  - 39% did not obtain
  - 25% did not return
  - 14% declined or had unsuccessful insertion

Oh, you hate wearing condoms? The T-shaped plastic device inserted through my cervix into my uterus that stays there for five years is crying for you.
Contraindications

- Setting of intrauterine infection at time of delivery, postpartum hemorrhage, and sepsis
- In absence of sepsis, no increased risk of bleeding or infection
- Contraceptive implant has not additional contraindications or risks associated
Breastfeeding

- Placental withdrawal after delivery of placenta triggers lactogenesis, concerns that progestin prevents onset of milk production
- Copper IUD has no effect on breastfeeding
- Observation studies suggest no effect on successful initiation and continuation of breastfeeding on growth and development
- Randomized trial--->no difference 3 days or 4-8 weeks postpartum
- Counsel
Cost Effective

- On average 4 patients need to receive device during the immediate postpartum period to prevent one additional rapid repeat pregnancy
- Immediate PP Implant prevents 191/1000 women, up to $1263 saved per implant
- IUDs save $2.94 for every dollar spent on device
  - Expulsion rate reaches 56-70%

O’Connell White (2016)
Condoms only work, like, 97% of the time.

What?!  

They should put that on the box!

They do.

No, they don't!

Well, they should put it in huge black letters!

Ross, come on, let's just forget about the condoms.

Oh, well, I may as well have!
Deliveries are billed for one package code
Generates flat fee for the hospital
Hospital provides all pregnancy related services from first prenatal visit up to immediate postpartum period
Fewer services mean a greater profit
Medicaid

- Reimbursement limit LARC provision to outpatient settings after hospital discharge
- Providers have inability to obtain additional payment in inpatient postpartum setting
- Coding logistics vary by state claim:
  - End of year reconciliation → credit adjustment for inpt LARC submitted same time as pregnancy
  - Reimbursement through a modifier → added to claim for second procedure same day
  - Use of same code as an outpatient LARC placement
- Some state Medicaid programs began to reimburse (2012)

O'Connell White (2016)
Other Barriers

- Comfort with procedure
- Training
- Safety/expulsion
- Additional time
- Reimbursement
- Staff
- Breastfeeding
- Stocking devices
- Contraceptive counseling prior to delivery

O’Connell White (2016)
ACOG LARC PROGRAM

- “Works to lower unintended pregnancy rate by connecting providers with up to date information and resources and increasing access to full range of contraceptive methods”
- ACOG is in process of compiling and publishing state Medicaid policies on postpartum insertion
- Looking into how to best deliver physician training
References


