

Postpartum Contraception

KS Perinatal Quality Collaborative

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Disclosures

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I have no financial interests to disclose.



Learning Objectives

- To improve understanding of the **importance of effective postpartum contraception**
 - To improve understanding of **shared decision making** and recognize coercion
 - To improve understanding of the risks and benefits of **different postpartum contraception**
 - To understand the implementation and use of **postpartum LARC**
-

Reproductive Justice

Sister Song:

The human right to maintain personal bodily autonomy, have children, not have children, and parent the children we have in safe and sustainable communities.



**Women of Color Reproductive
Justice Collective**

Reproductive Health

International Conference on Population and Development in 1994:

“Reproductive health...implies that people are able to have a satisfying and safe sex life and that they have the capability to reproduce and the freedom to decide if, when and how often to do so. ... Reproductive rights rest on the recognition of the basic right of all couples and individuals to **decide freely and responsibly on the number, spacing and timing of their children** and to **have the information and means to do so**, and the right to attain the highest standard of sexual and reproductive health. It also includes their right to make decisions concerning reproduction free of discrimination, coercion and violence.

The 4th Trimester

Lack of sleep, change in day to day life, changes in responsibilities, chest feeding/lactation, increased frequency of doctor's appts

- Stress
- Mood changes
- Sleep disruptions
- Sexuality changes

4th Trimester Priorities

Maximize ideal inter-pregnancy intervals

Establish effective breast/chestfeeding

Maximize parental support

Postpartum Realities

Many barriers to the postpartum visit→
High PP visit no-show rate

- 40-50% of patients do not attend any postpartum follow up

Quick return to ovulation (mean 39 days if not CF)

- Approximately 50% resume intercourse by PP visit



Unintended Pregnancies

Almost half of pregnancies in the US are unplanned

- At least 50% of unintended pregnancies occur within 2 years
- 35% occur within 18 months

Socioeconomically underserved twice as likely to have unintended pregnancies

Access to LARC and other contraception has been shown to decrease the rates of unintended pregnancy

Short Interval Pregnancy Interval (IPI)

ACOG: “Women should be advised to **avoid interpregnancy intervals shorter than 6 months** and should be counseled about the **risks and benefits of repeat pregnancy sooner than 18 months.**”

WHO: “After a live birth, the recommended minimum interval before attempting the next pregnancy is **at least 24 months** in order to reduce the risk of adverse maternal, perinatal and infant outcomes.”

CDC: “The conception of a live birth **occurring less than 18 months from the preceding live birth..** associated with increased risk for preterm birth, low birth weight, small for gestational age, and perinatal death

Birth Spacing

WHO: Birth intervals < 2 years are associated with:

- Lower birth weight
- Increased risk of preterm birth
- Malnutrition, infection, increased second year mortality for previous child
- Delayed and insufficient prenatal care
- Increased risk of rupture after cesarean

*Observational studies

Birth Spacing: Preterm Birth

JAMA Metanalysis

- IPI < 6 months associated with a 40% increase in risk for PTB compared to IPI > 2 years
- Short IPI increases the risk of PTB, most dramatically for those with a history of PTB

1. Conde-agudelo A, Rosas-bermúdez A, Kafury-goeta AC. *Birth spacing and risk of adverse perinatal outcomes: a meta-analysis*. JAMA. 2006;295(15):1809-23.

2. Defranco EA, Stamilio DM, Boslaugh SE, Gross GA, Muglia LJ. *A short interpregnancy interval is a risk factor for preterm birth and its recurrence*. Am J Obstet Gynecol. 2007;197(3):264.e1-6.

Birth Spacing: Low Birth Weight

JAMA Metanalysis

- IPI < 6 months associated with a 60% increase in risk of LBW (<2500 g)
- IPI < 6 months associated with a 15-30% increase in risk of SGA (<10%ile)

1. Conde-agudelo A, Rosas-bermúdez A, Kafury-goeta AC. *Birth spacing and risk of adverse perinatal outcomes: a meta-analysis*. JAMA. 2006;295(15):1809-23.

2. Defranco EA, Stamilio DM, Boslaugh SE, Gross GA, Muglia LJ. *A short interpregnancy interval is a risk factor for preterm birth and its recurrence*. Am J Obstet Gynecol. 2007;197(3):264.e1-6.



Birth Spacing: TOLAC

ACOG: Trial of Labor After Cesarean

- TOLAC is associated with a 3x increase in risk of uterine rupture among women with IDI <18 months

Birth Spacing: Summary

There is no definitive optimal birth spacing

- Shared decision making
- Patient Support

US observational studies suggest an increase in risk of adverse outcomes with intervals of less than 18 months

- More significant risk of adverse outcome with intervals of less than 6 months



How do we help?





Contraception Counseling

Prenatal Care

- Preferred by patients
- Increases uptake of postpartum contraception

Intrapartum

Postpartum



How to
Choose a
Method

Shared Decision Making

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Shared decision-making: two experts

- Health care provider: expert in the clinical evidence
- Patient: expert in their experiences and values



Patient Centered Counseling

“What is most important to you in a contraceptive option?”

“What methods have you tried before?
What did you like or not like about them?”

“What side effects are absolutely not acceptable for you?”

Shared Decision Making

Centers the patients experience with their contraception

Increases rates of uptake AND continuation of contraception

Recommended approach for counseling and care to help patients achieve their reproductive goals

1	No restriction for the use of the contraceptive method for a woman with that condition
2	Advantages of using the method generally outweigh the theoretical or proven risks
3	Theoretical or proven risks of the method usually outweigh the advantages – not usually recommended unless more appropriate methods are not available or acceptable
4	Unacceptable health risk if the contraceptive method is used by a woman with that condition



US Medical
Eligibility
Criteria

Summary Chart of U.S. Medical Eligibility Criteria for Contraceptive Use

Condition	Sub-Condition	CHC		POP		Injection		Implant		LNG-IUD		Cu-IUD	
		I	C	I	C	I	C	I	C	I	C	I	C
Ischemic heart disease [†]	Current and history of	4		2	3	3		2	3	2	3	1	
Liver tumors	a) Benign												
	i) Focal nodular hyperplasia	2		2		2		2		2		1	
	ii) Hepatocellular adenoma [†]	4		3		3		3		3		1	
	b) Malignant [†]	4		3		3		3		3		1	
Malaria		1		1		1		1		1		1	
Multiple risk factors for arterial cardiovascular disease	(such as older age, smoking, diabetes and hypertension)	3/4*		2*		3*		2*		2		1	
Obesity	a) ≥30 kg/m ² body mass index (BMI)	2		1		1		1		1		1	
	b) Menarche to <18 years and ≥30 kg/m ² BMI	2		1		2		1		1		1	
Ovarian cancer [†]		1		1		1		1		1		1	
Parity	a) Nulliparous	1		1		1		1		2		2	
	b) Parous	1		1		1		1		1		1	
Past ectopic pregnancy		1		2		1		1		1		1	
Pelvic inflammatory disease	a) Past, (assuming no current risk factors of sexually transmitted infections [STIs])												
	i) with subsequent pregnancy	1		1		1		1		1		1	
	ii) without subsequent pregnancy	1		1		1		1		2		2	
	b) Current	1		1		1		1		4		2*	
Peripartum cardiomyopathy [†]	a) Normal or mildly impaired cardiac function												
	i) <6 months	4		1		1		1		2		2	
	ii) ≥6 months	3		1		1		1		2		2	
	b) Moderately or severely impaired cardiac function	4		2		2		2		2		2	
Postabortion	a) First trimester	1*		1*		1*		1*		1*		1*	
	b) Second trimester	1*		1*		1*		1*		2		2	
	c) Immediately post-septic abortion	1*		1*		1*		1*		4		4	
Postpartum (see also Breastfeeding)	a) <21 days	4		1		1		1					
	b) 21 days to 42 days												
	i) with other risk factors for venous thromboembolism (VTE)	3*		1		1		1					
	ii) without other risk factors for VTE	2		1		1		1					
	c) >42 days	1		1		1		1					
Postpartum (in breastfeeding or non-breastfeeding women, including post-cesarean section)	a) <10 minutes after delivery of the placenta									2		1	
	b) 10 minutes after delivery of the placenta to <4 weeks									2		2	
	c) ≥4 weeks									1		1	
	d) Puerperal sepsis									4		4	
Pregnancy		NA*		NA*		NA*		NA*		4*		4*	

Condition	Sub-Condition	CHC		POP		Injection		Implant		LNG-IUD		Cu-IUD	
		I	C	I	C	I	C	I	C	I	C	I	C
Sexually Transmitted Infections (STI)	a) Current purulent cervicitis or chlamydial infection or gonorrhea	1		1		1		1		4		2*	
	b) Other STIs (excluding HIV and hepatitis)	1		1		1		1		2		2	
	c) Vaginitis (including trichomonas vaginalis and bacterial vaginosis)	1		1		1		1		2		2	
	d) Increased risk of STIs	1		1		1		1		2/3*		2/3*	
Smoking	a) Age <35	2		1		1		1		1		1	
	b) Age ≥35, <15 cigarettes/day	3		1		1		1		1		1	
	c) Age ≥35, ≥15 cigarettes/day	4		1		1		1		1		1	
Solid organ transplantation [†]	a) Complicated	4		2		2		2		3		3	
	b) Uncomplicated	2*		2		2		2		2		2	
Stroke [†]	History of cerebrovascular accident	4		2		3		2		3		2	
Superficial venous thrombosis	a) Varicose veins	1		1		1		1		1		1	
	b) Superficial thrombophlebitis	2		1		1		1		1		1	
Systemic lupus erythematosus [†]	a) Positive (or unknown) antiphospholipid antibodies	4		3		3		3		3		1	
	b) Severe thrombocytopenia	2		2		3		2		2*		3*	
	c) Immunosuppressive treatment	2		2		2		2		2		2	
	d) None of the above	2		2		2		2		2		1	
Thrombogenic mutations [†]		4*		2*		2*		2*		2*		1*	
Thyroid disorders	Simple goiter/hyperthyroid/hypothyroid	1		1		1		1		1		1	
Tuberculosis [†] (see also Drug Interactions)	a) Non-pelvic	1*		1*		1*		1*		1		1	
	b) Pelvic	1*		1*		1*		1*		4		3	
Unexplained vaginal bleeding	(suspicious for serious condition) before evaluation	2*		2*		3*		3*		4*		4*	
Uterine fibroids		1		1		1		1		2		2	
Valvular heart disease	a) Uncomplicated	2		1		1		1		1		1	
	b) Complicated [†]	4		1		1		1		1		1	
Vaginal bleeding patterns	a) Irregular pattern without heavy bleeding	1		2		2		2		1		1	
	b) Heavy or prolonged bleeding	1*		2*		2*		2*		1*		2*	
Viral hepatitis	a) Acute or flare	3/4*		2		1		1		1		1	
	b) Carrier/Chronic	1		1		1		1		1		1	
Drug Interactions													
Antiretroviral therapy	a) Nucleoside reverse transcriptase inhibitors	1*		1		1		1		2/3*		2*	
	b) Non-nucleoside reverse transcriptase inhibitors	2*		2*		1		2*		2/3*		2*	
	c) Ritonavir-boosted protease inhibitors	3*		3*		1		2*		2/3*		2*	
Anticonvulsant therapy	a) Certain anticonvulsants (phenytoin, carbamazepine, barbiturates, primidone, topiramate, oxcarbazepine)	3*		3*		1		2*		1		1	



Contraception: A quick review



Barrier Methods

Mechanism: prevent sperm from accessing egg

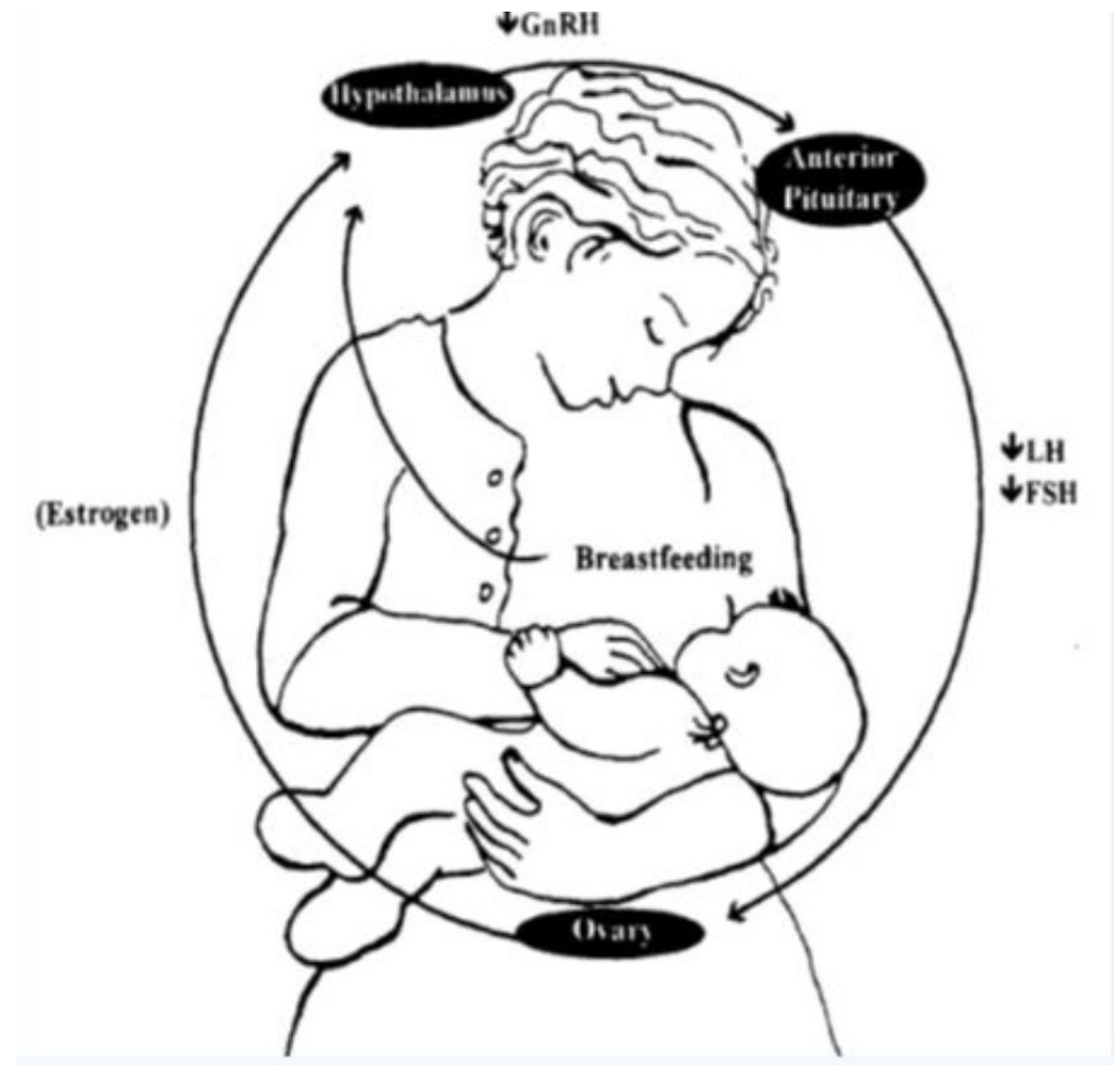
- Condoms, Diaphragm
- High failure rate- 80-85% efficacy with 1 year of use



Lactational Amenorrhea Method

Mechanism: suppresses ovulation

- To be effective:
- Exclusively chestfeeding
 - q3-4hr (day), 6 hr (night)
 - No supplementation
 - Pumping schedule adheres to above
- No menses
- Within first 6 months postpartum
 - 98% efficacy up to 6 months postpartum



Pills-POP

Progestin-only pills (POPs): <6 weeks postpartum (MEC Cat 2), > 6 weeks postpartum (MEC Category 1)

- Norethindrone 0.35 mg daily (Micronor)
- Drospirenone 4 mg x 24 days, placebo x 4 days (Slynd)



Pills-COC

- Combined-oral contraceptives (COCs):
 - Breastfeeding
 - < 3 weeks postpartum should not use COCs (MEC Category 4)
 - > 30 days postpartum w/o VTE risk factors (MEC Category 2)
 - Not breastfeeding
 - < 3 weeks postpartum should not use COCs (MEC Category 4)
 - > 3 weeks postpartum (MEC Category 1-2)



Pills-COC

COCs in breastfeeding:

- Conflicting results regarding effects on breastfeeding continuation or exclusivity with COCs during lactation- low quality evidence
- **Benefits of contraception outweigh the risks**

Adverse health outcomes of exogenous estrogen in infants exposed to COCs through breast-milk have not been demonstrated



Injections



Intrauterine
devices (IUDs)



Copper and hormonal
intrauterine devices (IUDs)

Subdermal
contraceptive
implants



Liletta™ 
(levonorgestrel-releasing intrauterine system) **52 mg**

Nexplanon®
(etonogestrel implant) 68mg
Radiopaque

ParaGard™ T 380A 
intrauterine copper contraceptive

Long Acting Reversible Contraception: LARC

>20x more effective than other forms of contraception

- Barriers to care

ACOG, CDC, American college of Pediatrics call LARC a first line

ACOG Guidance:

Immediate postpartum LARC :

- Few contraindications to postpartum IUDs and implants
- Counsel about the convenience and effectiveness of immediate postpartum LARC
- Benefits of reducing unintended pregnancy and lengthening interpregnancy intervals

Long-Acting Reversible Contraception: LARC

- Depo Provera: >99% effective
 - Breastfeeding: MEC Category 2
- Implant: >99% effective
 - Insertion immediately postpartum (Category 2) or interval (Category 1)
- IUD: >99% effective
 - Insertion immediately postpartum (Category 2) or interval (Category 1)

Postpartum (nonbreastfeeding women)						
a. <21 days	4	1	1	1		
b. 21 days to 42 days						
i. With other risk factors for VTE (such as age ≥ 35 years, previous VTE, thrombophilia, immobility, transfusion at delivery, BMI ≥ 30 , postpartum hemorrhage, postcesarean delivery, preeclampsia or smoking)	3 ⁺	1	1	1		
ii. Without other risk factors for VTE	2	1	1	1		
c. >42 days	1	1	1	1		
Postpartum (breastfeeding women [§])						
a. <21 days	4	2	2	2		
b. 21 to <30 days						
i. With other risk factors for VTE (such as age ≥ 35 years, previous VTE, thrombophilia, immobility, transfusion at delivery, BMI ≥ 30 kg/m ² , postpartum hemorrhage, postcesarean delivery, preeclampsia or smoking)	3 ⁺	2	2	2		
ii. Without other risk factors for VTE	3	2	2	2		
c. 30--42 days						
i. With other risk factors for VTE (such as age ≥ 35 years, previous VTE, thrombophilia, immobility, transfusion at delivery, BMI ≥ 30 , postpartum hemorrhage, postcesarean delivery, preeclampsia or smoking)	3 ⁺	1	1	1		
ii. Without other risk factors for VTE	2	1	1	1		
d. >42 days	2	1	1	1		
Postpartum (breastfeeding or nonbreastfeeding women, including postcesarean delivery)						

MEC LARC and Breastfeeding

“Two small randomized controlled trials found **no adverse impact on breast feeding with initiation of etonogesterol implants** within 48 hours postpartum. Other studies have found that **initiation of POP, injectables and implants** at <6 weeks postpartum compared with non-hormonal use had **no detrimental effect on breastfeeding outcomes or infant health, growth, and development in the first year postpartum.**”

Contraceptive Injection

Mechanism: suppresses ovulation

- Intramuscular- 150 mg
- Subcutaneous- 104 mg

Efficacy: 3 months

Contraindications:

- Active Breast Cancer

Consider alternatives:

- Severe decompensated cirrhosis
- Malignant liver disease
- SLE - Positive Antiphospholipid Antibodies





Contraceptive Implant

Mechanism: suppresses ovulation

Efficacy 5 years- FDA approved 4

Contraindications:

- Active Breast Cancer

Consider alternatives:

- Severe decompensated cirrhosis
- Malignant liver disease
- SLE - Positive Antiphospholipid Antibodies

IUD: Copper IUD



Mechanism: interferes with sperm motility

Efficacy 12 years –FDA approved 10

Contraindications:

- Acute pelvic infection (not prior)
- Copper allergy
- Unexplained uterine bleeding

Consider alternative:

- Uterine abnormality

IUD: Progesterone

Mechanism: thickens cervical mucous
Efficacy: 3-8 years

Contraindications:

- Acute pelvic infection (not prior)
- Unexplained uterine bleeding
- Active breast cancer

Consider alternative:

- Uterine abnormality



LARC Timing

Post-placental insertion ("Delivery Room Insertion")

- Inserted within 10 minutes after the expulsion of the placenta (vaginal delivery)

Immediate postpartum insertion ("Morning After Delivery Insertion")

- Inserted after the post-placental period but within 48-72 hours (vaginal delivery)

Trans-cesarean insertion

- Insertion following a cesarean delivery, before the uterine incision is closed

Interval insertion

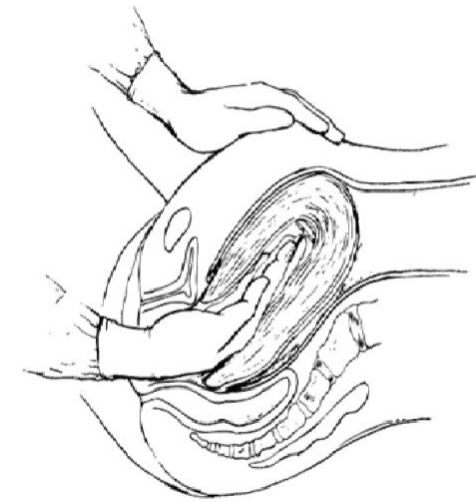
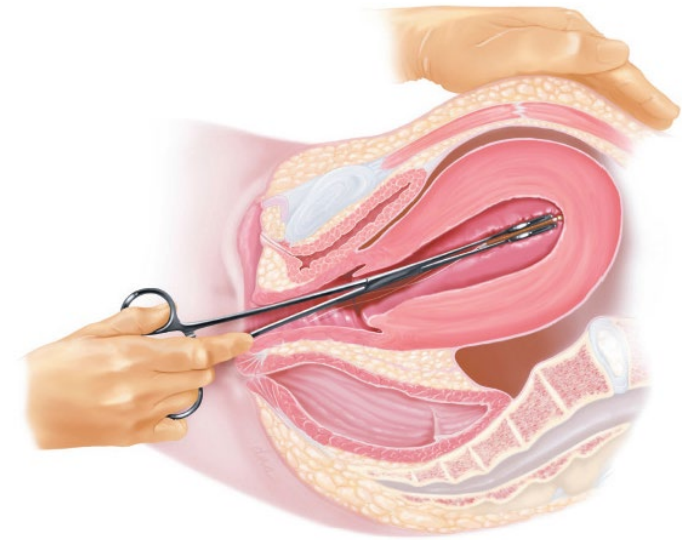
- Insertion of the IUD at ≥ 4 weeks postpartum

Post-placental IUD Placement

Insertion Techniques:

- Placental Forceps
- Dedicated Insertion Device
- Prolonged insertion device
- Hand

Ultrasound Guidance



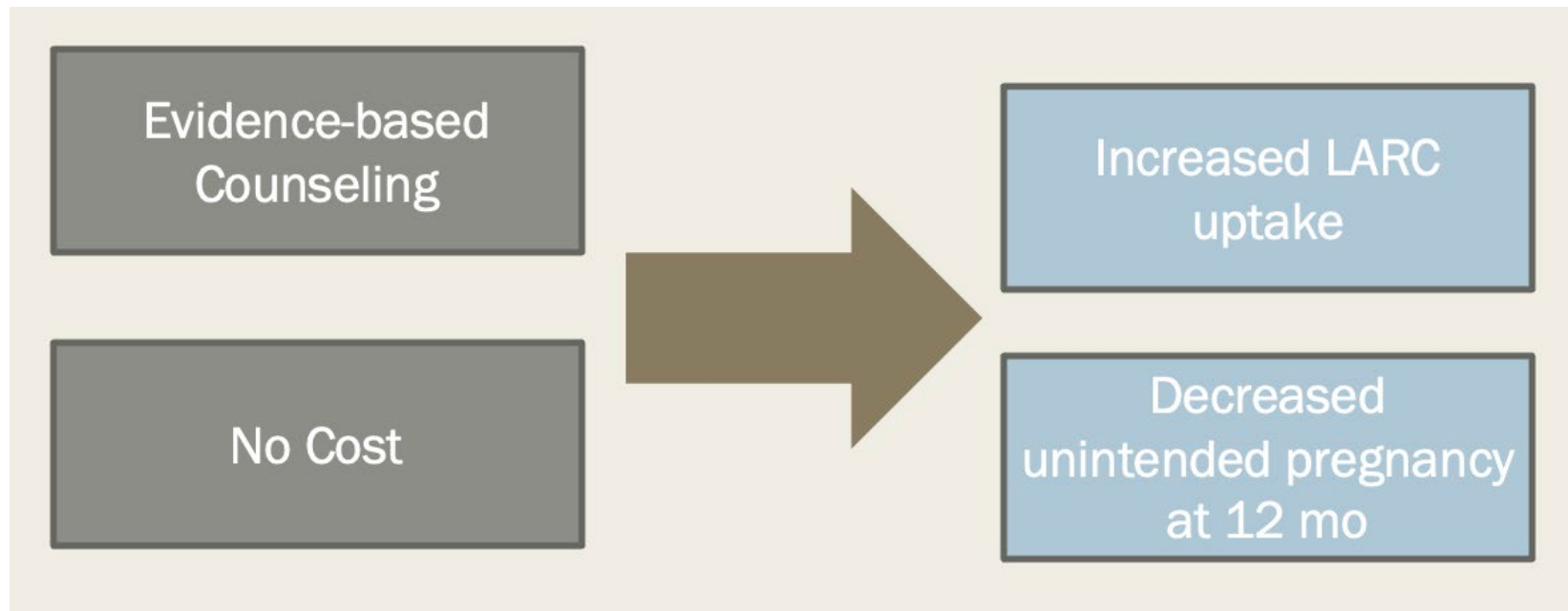
Post-placental IUD Placement

Risk of Expulsion

- Cochrane review
 - Risk of expulsion at 6 months: 17% for post-placental placement vs 3% for interval insertion (OR 4.89, CI 1.47-16.32)
 - IUD use at 6 months 81% for post-placental placement vs 67% for interval group (OR 2.04, CI 1.01-4.09)

“The fact is, a woman simply cannot continue to use an IUD that she never got”

Reducing Barriers: The CHOICE Study



- Peipert JF, Madden T, Allsworth JE, Secura GM. Preventing unintended pregnancies by providing no-cost contraception. [Obstet Gynecol 2012;120:1291–7](#)
- Secura GM, Allsworth JE, Madden T, Mullersman JL, Peipert JF. The Contraceptive CHOICE Project: Reducing barriers to long-acting reversible contraception. *American Journal of Obstetrics and Gynecology*. 2010;203.

Reducing Barriers

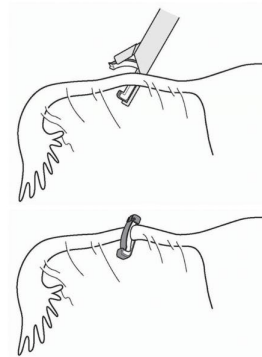
Systems should ensure that women who desire LARC can receive it

Develop the resources and processes to support immediate LARC placement after vaginal and cesarean births

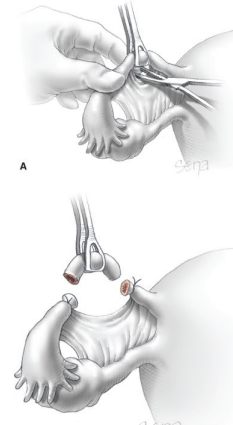
- Stocking LARC devices in the labor and delivery unit
- Coding and reimbursement strategies,

Postpartum Sterilization

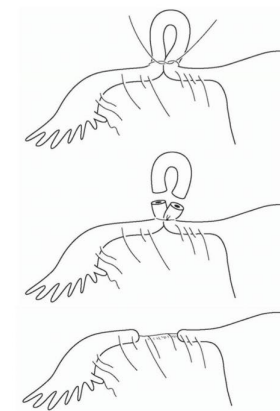
Filshie Clip



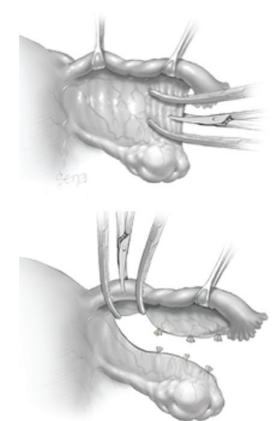
Parkland



Pomeroy



Salpingectomy





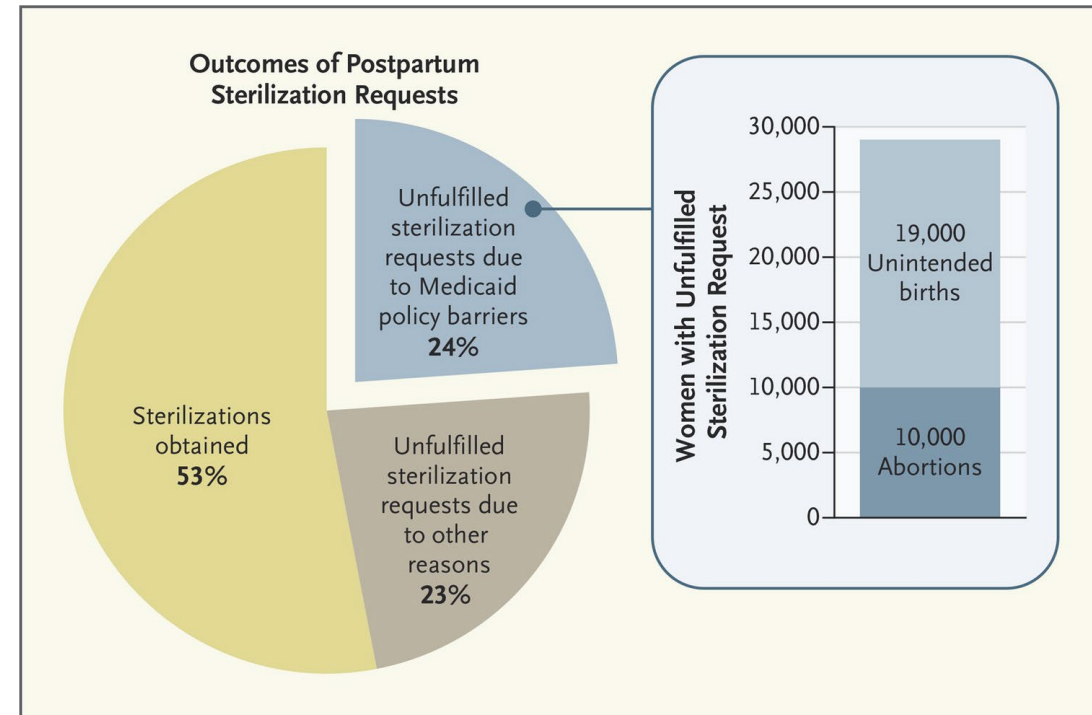
Postpartum Sterilization

Opportunistic Salpingectomy

- Epithelial ovarian cancers originate from the fallopian tubes
 - Tubal interruption lowers risk of ovarian cancer by 30%
 - Salpingectomy reduces ovarian cancer risk by 40-80%
 - Difference in operative time 5 minutes for salpingectomy vs partial
-

Postpartum Sterilization

- **50%** request postpartum permanent contraception during prenatal care actually undergo the procedure
- **50%** of women with unfulfilled permanent contraception requests become pregnant in 1 year



“Sterilization practices have embodied a problematic tension, in which some **women who desired fertility were sterilized without their knowledge or consent**, and other women who **wanted sterilization to limit their family size lacked access to it**.

An ethical approach to the provision of sterilization must, therefore, **promote access for women who wish to use sterilization as a method of contraception, but at the same time safeguard against coercive or otherwise unjust uses.**”





Conclusions and Take Aways





Take Aways

Interpregnancy Interval is a potentially modifiable risk factor for improved maternal and neonatal outcomes

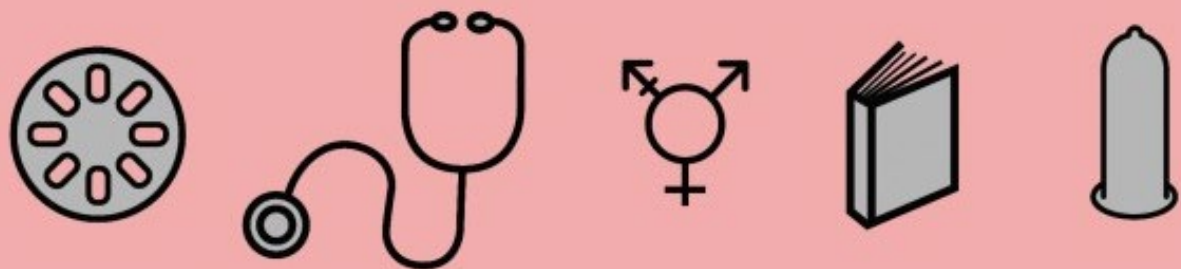
Patients and their families should be counseled on the benefits of intervals longer than 6 months (at least) between pregnancies.

Take Aways

Patients should be offered methods of contraception that will help them achieve the interpregnancy interval they desire

Patients of lower socioeconomic status appear to be at risk of the shortest interpregnancy intervals

LARCS present unique opportunities to combat short interval birth—especially administered in the immediate postpartum period

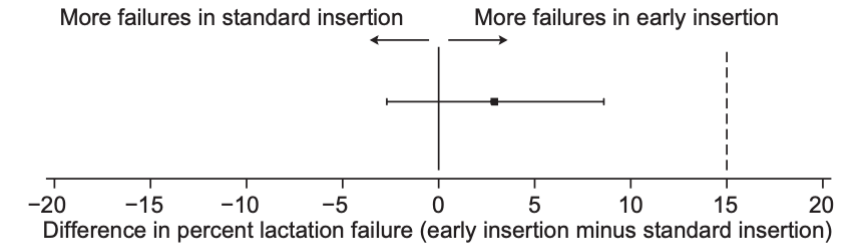


Questions

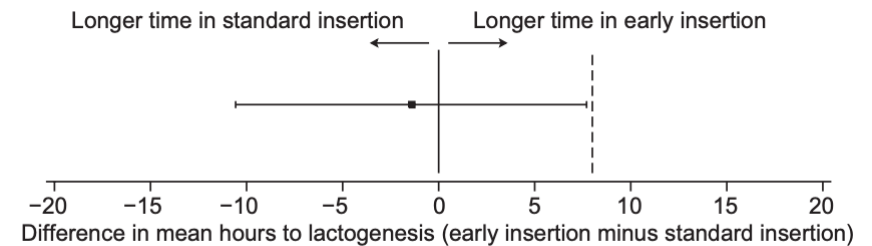
Contraceptive Implant

Breastfeeding

- Theoretical concern that initiating progestin-only method prior to lactogenesis stage II can negatively impact breastmilk production
- RCT: 69 women randomized early (1-3 days) vs interval (4-8 weeks) implant insertion
- No difference in time to lactogenesis stage II or lactation failure.
 - Time to lactogenesis stage II: early 64.3 ± 19.6 hours vs standard: 65.2 ± 18.5 hours
 - Lactation failure: early 3% vs standard 0%, RR 0.03, 95%CI 0.02-0.08
 - Use of formula supplementation was not significantly different between the groups.



A



B

The effect of immediate postpartum levonorgestrel contraceptive implant use on breastfeeding and infant growth: a randomized controlled trial^{☆,☆☆}

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ELSEVIER



Contraception

Contraception 94 (2016) 226–252

Review article

Progestogen-only contraceptive use among breastfeeding women: a systematic review[☆]

Sharon J. Phillips^{a,*}, Naomi K. Tepper^b, Nathalie Kapp^c, Kavita Nanda^d,
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”10 Minute Rule”

- Historically, publications and training curricula have emphasized the significance of “IUD insertion within 10 minutes of placental delivery”
- These guidelines are based largely on devices that are no longer available and with insertion techniques that are no longer utilized.
- Recent study of 500 women: PP-IUD placement <10 min vs >10 min
 - No difference of distance from fundus on immediate post-insertion ultrasound
 - No difference in subsequent expulsion

Black maternal Health

- Black patients experience a disproportionate share of unintended pregnancies
- Black patients are more than three times as likely to die a pregnancy-related death
- Black infant death rate is double that of white infants
- Black patients have lower survival rates for all gyn cancers