Finding the Right Contraception Option for Your Patient

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Learning Objectives

1. Provide patient-centered counseling and understand its importance related to quality contraceptive counseling.
2. Model a step-by-step guide to approaching counseling.
3. Outline contraceptive methods including administration, efficacy, effect on bleeding profile, side effects, non-contraceptive benefits, privacy and effect on future fertility.
4. Identify appropriate contraceptive methods for special populations.

In this presentation, I will use the term “women” to describe those who use female contraceptive methods.

It is important to recognize that not all people who are capable of pregnancy identify as women.

Transgender and gender nonbinary individuals have specific counseling needs and clinicians should consider patient identity and needs prior to counseling.

Clinicians should ask all male identifying patients about their contraceptive needs.

Contraceptive Counseling/Family Planning

Family planning care is designed to help patients achieve their reproductive goals.

These goals may not be singularly focused on preventing unintended pregnancy.

Physicians should focus on helping all patients achieve their desired reproductive outcomes by facilitating informed decision making about fertility and contraceptive use aligned with their preferences and goals.

Step-wise Approach to Counseling

- General principles:
  - Acknowledge the patient as the expert on their preferences.
  - Contribute your medical knowledge about different options and how they align with your patient's preferences.

  - Patient-centered care is respectful of, and responsive to, individual patient preferences, needs and values according to the National Academy of Medicine.
  - This model of care can positively impact the patient's long term health care engagement and outcomes.

Step-wise Approach to Counseling

- Establish rapport
  - Establishing a positive patient-physician relationship is of particular importance to contraceptive counseling given that this topic is personal and can be sensitive for some patients.
  - Simple acts like greeting patients with warmth and initiating the visit with small talk have been associated with contraceptive continuation.

Approach	Questions	Advantages	Disadvantages
Screening women for need for contraceptive counseling.	“Do you want to prevent pregnancy now?”	Identifies women’s current contraceptive needs.	Does not identify need for preconception counseling.
One key question.	“Would you like to become pregnant in the next year?”	Limits time frame which is being considered. Allows women to be unsure about plans.	Does not identify current contraceptive needs.
Reproductive life plan.	“Do you have children now?” “Do you want to have children or more children?” “How many children or more children would you like to have?”	Allows for provision of appropriate preconception care for this with a defined plan.	Does not identify current contraceptive needs. Does not acknowledge that unintended pregnancy may be welcomed. Does not account for how people modify their reproductive goals over time.
PATH questions.	**P**regnancy **A**ttitudes – “Do you think you might like to have children or more children?” **T**iming – “When do you think that might be?” **H**ow important is prevention – “How important is it to you to prevent pregnancy?”	Can open discussion about preconception care. Provides information about preferences related to efficacy of contraception.	Does not identify current contraceptive needs.

Step-wise Approach to Counseling

- Step 2: assess for medical conditions that affect safety of specific methods.
  - Such as: Smoking status; Cardiovascular conditions ; Migraine with aura
  - **Resource: US Medical Eligibility Criteria for Contraceptive Use**

Labeled as Category 1, 2, 3 and 4.

1. Generally safe and can be used without restriction.
2. Advantages generally outweigh theoretical or proven risks.
3. Method is usually not recommended (risks outweigh advantages) unless other more appropriate methods are not available or **acceptable**.
4. Contraindicated.

Looks at guidelines based on condition and method.
Allows for selection of multiple conditions and methods.

Step-wise Approach to Counseling

Initiate the conversation:

- “Do you have a sense of what is important to you about your method?”

Elicit informed preferences:

- “Contraception can be taken by mouth, a patch on the skin, ring in the vagina, a quarterly injection, an implant in your arm or go inside your uterus. What do you think about those options?”
- “There are methods taken daily, weekly, monthly or even less frequently. Is that something that makes a difference to you?”
- “How important is effectiveness at preventing pregnancy to you?”
- “Most methods cause changes in your bleeding, making it lighter, heavier, irregular or go away completely. How do you feel about these changes?”
- “Are there any side effects you are particularly worried about?”
- “Some methods have other benefits like controlling acne or decreasing cramps. Are any of those important to you?”
- “Is it important to conceal that you are using birth control?”
- “It is important to consider future pregnancy plans. Do you think you want to become pregnant in the near future?”

Facilitate decision making:

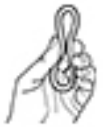
- "I have heard you say that X is important to you. Is that right?"
- "Given what you have said about your [stated goals], do you want to focus on X methods since these accomplish those goals?"

Making the final decision:

- "Given what we have discussed, what do you think would be the best choice for you at this time?"

Most effective

Birth control method options	Risk of pregnancy *	How the method is used	How often the method is used	Menstrual side effects	Other possible side effects to discuss	Other considerations	
Female sterilization 	0.5 out of 100	Surgical procedure	Permanent	None	Pain, bleeding, infection	Provides permanent protection against an unintended pregnancy	Counsel all clients about the use of condoms to reduce the risk of STIs, including HIV infection
Male sterilization 	0.15 out of 100						
IUD 	**LNG:** 0.2 out of 100	Placement inside uterus	Lasts up to 3 to 12 years	**LNG:** Spotting, lighter or no periods	Some pain with placement	**LNG:** No estrogen; may reduce menstrual cramps	
	CopperT: 0.8 out of 100			**CopperT:** Heavier periods		**CopperT:** No hormones; may cause more menstrual cramps	
Implant 	0.05 out of 100	Placement into upper arm	Lasts up to 3 years	Spotting, lighter or no periods		No estrogen	

Moderately effective	**Injectables** 	4 out of 100	Shot in arm, hip or under the skin	Every 3 months	Spotting, lighter or no periods	May cause appetite increase/ weight gain	No estrogen May reduce menstrual cramps	Counsel all clients about the use of condoms to reduce the risk of STIs, including HIV infection
	Pill 	8 out of 100	Take a pill	Every day at the same time	Can cause spotting for the first few months Periods may become lighter	May have nausea and breast tenderness for the first few months	Some clients may report improvement in acne May reduce menstrual cramps and anemia Lowers risk of ovarian and uterine cancer	
	Patch 	9 out of 100	Put a patch on skin	Each week				
	Ring 		Put a ring in vagina	Each month				
	Diaphragm 	12 out of 100	Use with spermicide and put in vagina	Every time you have sex	None	Allergic reaction, irritation	No hormones	

Least effective

Male condom 	13 out of 100	Put over penis	Every time you have sex	None	Allergic reaction, irritation	No hormones No prescription necessary	Counsel all clients about the use of condoms to reduce the risk of STIs, including HIV infection
Female condom 	21 out of 100	Put inside vagina					
Withdrawal 	20 out of 100	Pull penis out of the vagina before ejaculation			None	No hormones Nothing to buy	
Sponge 	12 to 24 out of 100	Put inside vagina			Allergic reaction, irritation	No hormones No prescription necessary	
Fertility awareness based methods 	24 out of 100	Monitor fertility signs Abstain or use condoms on fertile days	Daily		None	No hormones Can increase awareness and understanding of a woman's fertility signs	
Spermicides 	28 out of 100	Put inside vagina	Every time you have sex		Allergic reaction, irritation	No hormones No prescription necessary	

Step-wise Approach to Counseling

- Begin with a general overview of how the contraceptive methods vary.
- Respond to any priorities expressed in response to the initial preference questions.
- Review general characteristics and discuss the options with that characteristic.
- In most cases, a few strong preferences will narrow down the options without the need to review all available contraceptive options.
- Be aware that additional preferences may emerge during the decision-making process which can change the direction of the conversation.

Contraceptive Methods

Fertility Awareness

- Based on physiologic changes during cycle and lifespan of ova and sperm
- Identify fertile days
  - Women are fertile 5 days before up to 24 hours after ovulation
- Avoid intercourse or use coital dependent methods
- Candidates are motivated, may have health or personal reasons for avoiding other methods and can follow through with requirements of FA
- Contraindications: irregular cycles, inability to track physiologic changes (cervical mucous, basal body temp), lack of supportive partner
- Perfect use failure rate is 5%, typical use is 25%
- Many apps available which can teach patients how to use the different methods

Fertility Awareness Methods

Standard days: calendar based, avoid unprotected sex on day 8 to 19 of cycle, cycle must be 26-32 days, failure rate <5-12/100 women/year
Ovulation: evaluate cervical secretions in conjunction with ovulatory window, failure rate 3-23/100 women/year
Two Day: avoid unprotected sex on all days with cervical mucous and the day after, failure rate 3.5-14/100 women/year
Symptothermal: combines cervical secretion and basal body temp, 2-13/100 women/year
Fertility monitor: use of OTC fertility monitor in conjunction with calendar method, 2-15% failure rate
Advantages: no cost, immediate return to fertility
Disadvantages: must be willing to capture and track data for these methods to be accurate

Pericoital Contraception

Diaphragm, Cervical Cap, Contraceptive Sponge – maintain contraceptive gel against the cervix
Spermicidal compounds – immobilize sperm preventing movement into upper reproductive tract
Male and Female Condom – provide a physical barrier preventing any sperm from migrating out of the vagina and into the upper reproductive tract
Advantages: safe, no hormone exposure, used as needed, some methods are reusable, inexpensive, OTC, can be used in combination with other methods
Disadvantages: high failure rate, not private, may need to use these methods in combination for increased effect, motivation

Progestin-only Pills

Norethindrone 0.35-1mg and Drospirenone 3-4mg are most common
Norethindrone taken continuously
Drospirenone taken 24/4 cycle
Candidates: most women, especially those with contraindications to estrogen containing methods
Contraindications: pregnancy, breast cancer, undiagnosed AUB, liver tumors, severe cirrhosis, acute liver disease
9% failure rate in 1st year of use
Need to be taken daily and at the same time due to short half-life
Advantages: rapid return of fertility, reduce ectopic pregnancy risk, reduced risk of endometrial cancer
Side effects: unscheduled bleeding or spotting, increased follicular cysts
Can initiate at any time in cycle, use backup contraception for 7 days if >5 days from cycle onset

Combined Oral Contraceptive Pill

- Monophasic vs Multiphasic
  - Monophasic should be initial prescription due to ease of use, consistent hormone dosage, ease of adherence
  - Multiphasic require careful adherence, cannot be transitioned to continuous or extended-cycle regimens, potential of exacerbating mood symptoms due to changing hormone levels
- Cyclic vs Extended-cycle vs Continuous
  - Use based on patient preference of monthly cycle vs every 3 months vs none
- Ethinyl estradiol dose
  - Use of preparations with 35mcg or less, can start with 20mcg dose
  - Efficacy is similar across range of doses
- Progestin type
  - No need to preferentially prescribe based on type of progestin
- 24/4 vs 21/7 formulations
  - Emerging evidence about increased efficacy and decreased hormone withdrawal side effects related to 24/4 preparation

Combined Oral Contraceptive Pill

- Screen for smoking, hypertension, diabetes, thromboembolism, migraine with aura, breast cancer and postpartum status
- Document BMI
- Quick start, Sunday start or First day start
- If starting >5 days after menses onset use backup method for 7 days
- Can be started within 7 days after pregnancy loss
- Postpartum women can begin 21 days after delivery; if breastfeeding wait 30 days; if other VTE risk factors wait until 6 weeks PP
- Missed pill – if one miss then take that pill and keep on schedule; if 2 or more are missed take pills at usual time and use backup method for 7 days
- Menses returns within 30 days after stopping; fertility can take up to 90 days but can be as soon as 30 days

Combined Oral Contraceptive Pill

Category 3
• age>=35yo and smokes <15 cigarettes daily • uncontrolled hypertension • hypertension adequately controlled on medications • past breast cancer and no evidence of disease for 5 years • current gallbladder disease • malabsorptive bariatric surgery • superficial venous thrombosis • IBD with risk factors for VTE • Anticonvulsant therapy (phenytoin, carbamazepine, barbiturates, primidone, topiramate, oxcarbazepine) • Use with lamotrigine (can increase clearance of this drug)

Category 4
• age >=35yo and smokes >=15 cigarettes daily • multiple risk factors for CVD • uncontrolled hypertension • VTE, unless on anticoagulation • ischemic heart disease • history of CVA • complicated valvular heart disease • severe decompensated cirrhosis • hepatocellular adenoma or malignant hepatoma • migraine with aura • diabetes >20years or with nephropathy, retinopathy or neuropathy • individuals with known thrombogenic variants

Non-contraceptive Benefits

- Dysmenorrhea symptom improvement
- Improvement of pelvic pain related to endometriosis
- Menorrhagia with improvement in iron deficiency anemia related to this blood loss
- Reduces risk of ectopic pregnancy
- Improving symptoms related to PMS and PMDD
- Benign breast disease reduction
- Reduces development of ovarian cysts
- Ovarian cancer risk reduction
- Endometrial cancer risk reduction
- Acne improvement
- Hirsutism improvement
- Regulation of menstrual cycles
- Extended-cycle or Continuous can reduce symptoms of menstrual migraine

Contraceptive Patches

- Formulations
  - Ethinyl estradiol-norelgestromin: 35mcg of EE, 150mcg of N released daily; EE exposure to the patient is 60% higher than with OCPs
  - Ethinyl estradiol-levonorgestrel: 30mcg of EE, 120mcg of LNG released daily; exposure to the patient is similar to OCPs
- Candidates for this therapy are like those for OCPs
- Contraindications: same as OCPs with addition of - BMI>=30; hepatitis C treatment with ombitasvir/paritaprevir/ritonavir; those with skin hypersensitivity may not be good candidates
- Advantages: weekly dose, non-oral route, therapeutic effects achieved at lower peak doses, sustained drug delivery preventing peaks and troughs
- As effective as OCPs
- Side effects: unscheduled bleeding or spotting, breast tenderness, headache, nausea, dysmenorrhea (usually resolves within 6 months)
- May need increase of thyroid or cortisol replacement therapy after initiation of the patch
- Modest increased risk of VTE for patch users compared to low-dose OCP users
- Extended cycle use is not recommended due to VTE risk
- Return of fertility occurs within 3 days of discontinuation

Contraceptive Rings

- Start up recommendations are similar to OCPs
- Left in place for 3 weeks and removed for 1 week
- Formulation: ENG/EE ring – 120mcg of ENG and 15mcg EE daily, SA/EE ring 150mcg of SA ad 13mcg of EE daily
  - ENG/EE ring is disposed of after 3 weeks
  - SA/EE ring is washed, dried and placed in its case; can be used for 13 cycles
- Both can be used un an extended manner, but patient may experience unscheduled spotting
- Expulsion: ENG/EE ring can be reinserted if out less than 3 hours, SA/EE ring less than 2 hours → if more than that back up contraception is recommended
- Return of fertility: within 30 days on average with longest time frame up to 6 months
- SA/EE ring does not require refrigeration for storage
- Pre-prescription contraindications are the same as OCPs
  - Rings are not associated with clinically significant metabolic side effects which can be seen with OCPs
- Advantages: cycle control, bleeding reduction, reduced endometriosis related pain, no impact on insulin resistance (OCPs can increase insulin levels)

https://www.bedsider.org/

Injectable Contraception

- DMPA for DepoProvera
- 150mg/1mL IM injection every 3 months
- Progesterone only
- Unintended pregnancy rate is 6% in 1st year
- Advantages: reversible; private; efficacy in obese women; reduces ectopic pregnancy risk/dysmenorrhea/endometriosis related pain/uterine bleeding; few drug interactions
- Bleeding profile: cycles are typically lighter and may cease, risk of unscheduled bleeding
- Disadvantages: weight gain, depressed mood, reversible bone mineral loss, delayed return to fertility
- Contraindications: severe cirrhosis, hepatocellular adenoma, diabetes with nephropathy or vasculopathy, hypertension, ischemic heart disease, lupus; long term corticosteroid use
- No screening required prior to initiation
- Initiation: 1st day of cycle, quick start – if more than 7 days after LMP then use backup method for 7 days
- If injection is given >15 weeks after previous, HCG test and use back up method for 7 days
- Return to fertility: average is 3-6 months but can be as high as 18 months depending on body weight

Long Acting Reversible Contraception (LARC)

- Hormonal IUD
- Implant
- Copper IUD

Levonorgestrel releasing IUD

- Highly efficacious, reduces menstrual bleeding and anemia, possible amenorrhea, reduces dysmenorrhea, treats endometriosis related pelvic pain, decrease risk of ectopic pregnancy
- 52mg (Mirena or Liletta)
  - Amenorrhea in 20-40%
  - Up to 7 years with Mirena
  - Up to 6 years with Liletta
- 19.5mg (Kyleena)
  - Amenohrrea in 12-20%
  - Up to 5 years
- 13.5mg (Skyla)
  - Amenorrhea in 6-12%
  - Up to 3 years
- All 3 can have unscheduled bleeding which typically resolves in first 6 months of use
- Can be used in women with contraindication to estrogen
- Contraindications: severe distortion of uterine cavity, acute pelvic infection, pregnancy, unexplained AUB, current breast cancer

Copper IUD

- Avoids exogenous hormones, no effect on bleeding pattern, long term use, can be used for emergency contraception
- Contraindications: severe distortion of uterine cavity, acute pelvic infection, pregnancy, unexplained AUB, current breast cancer, Wilson's Disease
- May increase dysmenorrhea in some women
- Used for 10 years

Etonogestrel Implant

- Progestin releasing device
- Good for 3 years
- Requires office visit and procedure
- Insert between days 1 and 5 of cycle, if not done during this time use backup method for 7 days and exclude pregnancy
- Contraindications are similar to POPs – pregnancy, thrombosis, hepatic tumor, active lover disease, undiagnosed AUB, breast cancer
- Side effects: 11% have unscheduled bleeding which may decrease over time, headache, weight gain (approx. 6lbs)
- Advantages: effective, long acting, private, lightened bleeding,
- Return to fertility within 3-4 weeks of removal

Emergency contraception

- Products decrease risk of pregnancy after intercourse but before establishment of pregnancy
- IUDs are most effective, provide ongoing contraception but require a doctor's visit
- Medication EC:
  - Ulipristal: used up to 5 days after UPI, prescription, more effective than LNG EC especially for BMI>30 or high pregnancy risk, hormonal contraception delayed start for 5 days after
    - 20MG one time dose
  - Levonorgestrol: less effective, used up to 3 days after UPI, OTC, hormonal contraception can be started at same time
    - 1.5MG one time dose
- If no menses within 3 weeks of use pregnancy test should be performed

Considerations for Special Populations

Adolescents

- 80% of pregnancies among 15-19yo are unintended

Motivating factors

- Pregnancy perceived as negative outcome
- Long term educational goals
- Has pregnancy scare
- Family, friends or clinician which sanction use of contraception

Barriers

- Concerns about confidentiality
- Cost
- Misperceptions
- Knowledge deficits among adolescents and healthcare providers

- Adolescents should be given opportunity to provide history and get information directly from clinician
- It is important to be familiar with state laws related to parental consent
  - Guttmacher Institute https://www.guttmacher.org/state-policy/explore/overview-minors-consent-law
- Providers should be familiar with local resources for teens to obtain contraception at little or no cost **https://amplifytulsa.org/youth/find-a-clinic/**
- Teens have many misperceptions related to risk of getting pregnant, exam required to initiate, effectiveness, side effects, effect on fertility

- Choosing a method:
  - Stage of development affects teens ability to implement and adhere to a regimen
  - For most, the advantages of contraception outweigh the risks
  - Factors most important to adolescents are efficacy, duration, convenience and side effects
  - Even adolescents who chose abstinence should receive information about pregnancy and STI prevention
  - Typically want to start discussion with most effective options
  - LARCs are first line in adolescents per AAP and ACOG guidelines

Females with obesity

- All contraceptives are indicated in females with obesity
- Concerns related to efficacy: women with obesity may take longer to achieve therapeutic drug levels when starting OCPs – data is limited and inconsistent
- Obesity does increase baseline risk of VTE
- Examine comorbidities and weigh risks related to comorbidities to that of pregnancy-related complications
- How to decide:
  - Avoid any increased risk: Copper IUD, Pericoital contraception, Barriers
  - Small increased risk: Etonogestrel implant, DMPA, POP
  - Confirmed increased risk: CHC; while relative risk of VTE is increased, the absolute risk is still considered acceptable for otherwise healthy women with obesity

Postabortion contraception

- Initial counseling steps are the same as with any woman seeking contraception
- Important to counsel that ovulation postabortion mean is 21-29 days
- Most methods can be started immediately postabortion
  - Initiation can be completed when pregnancy passing is confirmed either via tissue visualized or by US
  - Induced abortion: if immediate no backup method required, if not immediate backup method is recommended for 7 days after
  - Spontaneous abortion: initiation once uterus is determined to be empty with backup method for 7 days post initiation

Postpartum contraception

- Time to ovulation is 45-94 days with earliest at 25 days
  - Wide variation in number of women who attend 6 week PP visit
  - Up to 51% resume sexual activity prior to 6 week visit
- Goal is to avoid IPI of 6 months or less with shortest benefit interval of 18 months
- 3 major considerations
  - VTE risk: Progestin only contraception can be initiated at any time, CHC cannot be initiated until at least 21 days PP but is reasonable to wait 3-6 weeks
  - Breastfeeding status: differing recommendations; current evidence is lacking in definitive answer to hormone effect
    - Progestin only methods do not appear to have any effect
    - Data related to estrogen containing contraception is mixed and inconsistent
  - Medical comorbidities
- Counseling method is the same

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