CLINICAL VIGNETTE

Clinical Highlights of the U.S. Selected Practice Recommendations for Contraceptive Use, 2013 (US SPR)

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In the United States, about half of all pregnancies in women ages 15-44 are unplanned[1] and half of the women with unplanned pregnancies are not using contraception at the time they get pregnant[2]. The direct annual medical costs of unintended pregnancy are $5 billion and the medical cost savings due to contraception are $19 billion[3]. Increasing correct use of contraception is an important goal in the primary care of women of reproductive age. The Centers for Disease Control and Prevention (CDC) released the United States Medical Eligibility Criteria for Contraception (US MEC) guidelines in 2010[4]. In 2013, the CDC released the United States Selected Practice Recommendations for Contraceptive Use (US SPR)[5]. While the *US MEC* provides guidance on *who* can use various methods of contraception based on individual medical history and other factors, the *US SPR* provides guidance on *how* contraceptive methods can be used and how to remove unnecessary barriers for patients in accessing and successfully using contraceptive methods (unnecessary screening exams and tests before starting the method, inability to receive the method on the same day as the visit, difficulty obtaining continued contraceptive supplies, etc.).

For each contraceptive method, *US SPR* provides recommendations on the following:

- timing for initiation of the method
- indications for when and for how long a back-up contraceptive method is needed
- indications on how to switch from another method
- examinations and tests needed before recommending/prescribing the method
- if there are special considerations/circumstances that should be considered

Many of these recommendations advise that a woman can start a contraceptive method at any time during her menstrual cycle if it is reasonably certain she is not pregnant, which can be assumed if she has no symptoms or signs of pregnancy and if she meets any one of the criteria[5] in Table 1.

Table 1: Clinical criteria to assess absence of pregnancy

≤ 7 days after the start of normal menses
No sexual intercourse since the start of last normal menses
Continued correct and consistent use of a reliable method of contraception
≤ 7 days after spontaneous or induced abortion
Within 4 weeks postpartum
Breastfeeding: exclusively breastfeeding or ≥ 85% of feeds are breastfeeds, amenorrheic and less than 6 months postpartum

Hormonal Contraception

Combined Hormonal Contraceptives (CHCs)

Combined hormonal contraceptives contain both estrogen and a progestin, which are delivered in various forms: pills (various formulations), transdermal contraceptive patch (releases 150 μg of Norelgestromin and 20 μg Ethinyl estradiol daily) and vaginal contraceptive ring (releases 120 μg Etonogestrel and 15 μg Ethinyl estradiol daily). These methods are reversible and can be used by women of all ages.

Initiation of CHCs: Combined hormonal contraceptives can be initiated at any time if it is reasonably certain that the woman is not pregnant and she meets eligibility criteria for CHC use according to the US Medical Eligibility Criteria for contraception.

Need for back-up contraception: If combined hormonal contraceptives are started within the first 5 days of onset of menstrual bleeding, no additional contraceptive protection is needed. If combined hormonal contraceptives are started more than 5 days after onset of menstrual bleeding, the woman needs to abstain from sexual intercourse or use additional contraceptive protection for the next 7 days.

Switching to CHCs from another contraceptive method: Combined hormonal contraceptives can be started immediately if it is reasonably certain that the woman is not pregnant. Waiting for her next menstrual period is unnecessary. If it has been more than 5 days since her menstrual bleeding started, the woman needs to abstain from sexual intercourse or use additional contraceptive protection for the next 7 days.

Examinations and tests needed before starting CHCs: the patient should meet the US Medical Eligibility Criteria (for example, CHCs are not indicated in a woman older than 35 who has migraine with aura). It is recommended to check blood pressure before initiation of combined hormonal contraceptives.

Special Considerations:
Postpartum women who are breastfeeding. These women should not use CHCs during the first 3 weeks after delivery because of an increased risk for venous thromboembolism and should not use combined hormonal contraceptives during the first 4 weeks postpartum because of potential effects on breastfeeding. Postpartum, breastfeeding women with other risk factors for venous thromboembolism should not use combined hormonal contraceptives for 4–6 weeks after delivery.
If the woman is less than 6 months postpartum, amenorrheic, and fully or nearly fully breastfeeding, no additional contraceptive protection is needed. Otherwise, a woman who is not breastfeeding or partially breastfeeding who is more than 21 days postpartum needs to abstain from sexual intercourse or use additional contraceptive protection for the next 7 days.

Post abortion: CHCs can be started within the first 7 days after first or second trimester abortion, including immediately post abortion. The woman needs to abstain from sexual intercourse or use additional contraceptive protection for the next 7 days unless combined hormonal contraceptives are started at the time of a surgical abortion.

Progestin-Only Pills (POP)
POPs are reversible and can be used by women of all ages. They can be started at any time if it is reasonably certain that the woman is not pregnant.

Need for back-up contraception: If POPs are started within the first 5 days since menstrual bleeding started; no additional contraceptive protection is needed. If POPs are started more than 5 days since menstrual bleeding started, the woman needs to abstain from sexual intercourse or use additional contraceptive protection for the next 2 days.
Switching to POPs from another contraceptive method: POPs can be started immediately if it is reasonably certain that the woman is not pregnant. Waiting for her next menstrual period is unnecessary. If it has been more than 5 days since menstrual bleeding started, she needs to abstain from sexual intercourse or use additional contraceptive protection for the next 2 days.

No examinations and tests are needed before initiation of POPs.

Special Considerations:
Postpartum: POPs can be started at any time, including immediately if it is reasonably certain that the woman is not pregnant.

Need for back-up contraception: If the woman is less than 6 months postpartum, amenorrheic, and breastfeeding fully or nearly fully, no additional contraceptive protection is needed. Otherwise, a woman not breastfeeding or partially breastfeeding who is more than 21 days postpartum needs to abstain from sexual intercourse or use additional contraceptive protection for the next 2 days.

Postabortion: POPs can be started within the first 7 days, including immediately post abortion.

Need for back-up contraception: The woman needs to abstain from sexual intercourse or use additional contraceptive protection for the next 2 days unless POPs are started at the time of a surgical abortion.

Implant
The Etonogestrel implant (single rod with 68 mg of Etonogestrel inserted subcutaneously) is long acting and reversible. It can be used by women of all ages, including adolescents. The implant can be inserted at any time if it is reasonably certain that the woman is not pregnant.

Need for back-up contraception: If the implant is inserted within the first 5 days since menstrual bleeding started, no additional contraceptive protection is needed. If the implant is inserted more than 5 days since menstrual bleeding started, the woman needs to abstain from sexual intercourse or use additional contraceptive protection for the next 7 days.

Switching from another contraceptive method: The implant can be inserted immediately if it is

reasonably certain that the woman is not pregnant. Waiting for her next menstrual period is unnecessary. No special tests are needed before inserting an implant.

Special considerations:

Postpartum: The implant can be inserted at any time if it is reasonably certain that the woman is not pregnant

Need for back-up contraception: If the woman is less than 6 months postpartum, amenorrheic, and fully or nearly fully breastfeeding, no additional contraceptive protection is needed. Otherwise, if the woman is more than 21 days postpartum, not breastfeeding or partially breastfeeding, she needs to abstain from sexual intercourse or use additional contraceptive protection for the next 7 days.
Postabortion: The implant can be inserted within the first 7 days, including immediately after the abortion.
Need for back-up contraception: The woman needs to abstain from sexual intercourse or use additional contraceptive protection for the next 7 days unless the implant is placed at the time of a surgical abortion.

Injectable Progestin

Progestin-only injectable contraceptives, depot-medroxy progesterone acetate DMPA (150 mg intramuscularly or 104 mg subcutaneously) are reversible and can be used by women of all ages, including adolescents. The first DMPA injection can be given at any time if it is reasonably certain that the woman is not pregnant.

Need for back-up contraception: If DMPA is started within the first 7 days since menstrual bleeding started; no additional contraceptive protection is needed. If DMPA is started more than 7 days since menstrual bleeding started, the woman needs to abstain from sexual intercourse or use additional contraceptive protection for the next 7 days.

Switching from another contraceptive method: The first DMPA injection can be given immediately if it is reasonably certain that the woman is not pregnant. Waiting for her next menstrual period is unnecessary.

Need for back-up contraception: If it has been more than 7 days since menstrual bleeding started, the woman needs to abstain from sexual intercourse or use additional contraceptive protection for the next 7 days.

No specific examinations and tests are needed prior to initiating DMPA.

Special Considerations

Amenorrhea (Not Postpartum): The first DMPA injection can be given at any time if it is reasonably certain that the woman is not pregnant.
Need for back-up contraception: The woman needs to abstain from sexual intercourse or use additional contraceptive protection for the next 7 days.

Postpartum: The first DMPA injection can be given at any time, including immediately postpartum if it is reasonably certain that the woman is not pregnant.

Need for back-up contraception: If the woman is less than 6 months postpartum, amenorrheic, and fully or nearly fully breastfeeding, no additional contraceptive protection is needed. Otherwise, a woman who is not breastfeeding or is partially breastfeeding, more than 21 days postpartum needs to abstain from sexual intercourse or use additional contraceptive protection for the next 7 days.

Postabortion: The first DMPA injection can be given within the first 7 days, including immediately post abortion.

Need for back-up contraception: The woman needs to abstain from sexual intercourse or use additional contraceptive protection for the next 7 days unless the injection is given at the time of a surgical abortion.

Timing of DMPA Injection

Routinely, repeat DMPA injections should be administered every 3 months or 13 weeks. However, for patient convenience, it is fine to provide repeat DMPA injections early. More commonly patients return late for repeat injections. The CDC guidelines indicate that the contraceptive injections can be given up to 2 weeks late (up to 15 weeks from the last injection), without requiring additional contraceptive protection. If the woman is more than 2 weeks late for her repeat DMPA injection (more than 15 weeks from the last injection), she can have the DMPA injection if it is reasonably certain that she is not pregnant. Such patients will need to use additional back-up contraceptive protection for the next 7 days.

Intrauterine Contraception

Three IUDs are available in the United States, the Cu-IUD (Copper IUD) and two LNG-IUDs (containing a total of either 13.5 mg or 52 mg Levonorgestrel). IUDs are long acting, are

reversible, and can be used by women of all ages, including adolescents, and both by parous and nulliparous women.

Initiation of IUDs: The IUD can be inserted at any time if it is reasonably certain that the woman is not pregnant. Prophylactic antibiotics are generally not recommended for Cu-IUD or LNG-IUD insertion.

Need for back-up contraception: If the LNG-IUD is inserted within the first 7 days since menstrual bleeding started, no additional contraceptive protection is needed. If the LNG-IUD is inserted more than 7 days since menstrual bleeding started, the woman needs to abstain from sexual intercourse or use additional contraceptive protection for the next 7 days.

Switching from another contraceptive method to the IUD: The LNG-IUD can be inserted immediately if it is reasonably certain that the woman is not pregnant. Waiting for her next menstrual period is unnecessary.

Need for back-up contraception: If it has been more than 7 days since menstrual bleeding began, the woman needs to abstain from sexual intercourse or use additional contraceptive protection for the next 7 days.

Switching from an IUD to another method:
If the woman had sexual intercourse since the start of her current menstrual cycle and it has been more than 5 days since menstrual bleeding started, theoretically, residual sperm might be in the genital tract, which could lead to fertilization if ovulation occurs. Any of the following options can be considered:

- retain the IUD for at least 7 days after combined hormonal contraceptives are initiated and return for IUD removal
- abstain from sexual intercourse or use barrier contraception for 7 days before removing the IUD and switching to the new method.
- use emergency contraception (ECP) at the time of IUD removal.

Examinations and tests needed before IUD insertion. Bimanual examination and cervical inspection are needed. If a woman has not been screened according to CDC's *STD Treatment Guidelines* (6), screening can be performed at the time of IUD insertion, and insertion should not be delayed. In women with purulent cervicitis or current chlamydial infection or gonorrhea, or women who have a very high likelihood of STD exposure (e.g., those with a currently infected partner), IUD insertion should be delayed until appropriate testing and treatment occur.

PID With an IUD: When a woman using an intrauterine device (IUD) is found to have pelvic inflammatory disease (PID), many clinicians will immediately remove the device as they initiate antibiotics. The CDC indicates that we should treat the PID according to the *Sexually Transmitted Diseases Treatment Guidelines* (6) and the IUD does not have to be removed immediately if the woman needs ongoing contraception. If no improvement has occurred by the time of clinical reassessment 2 to 3 days after initiation of treatment, the patient should continue taking antibiotics and consider removal of the IUD at that time.

Special considerations
Postpartum (Including After Cesarean Section): The LNG-IUD can be inserted at any time, including immediately postpartum if it is reasonably certain that the woman is not pregnant. The LNG-IUD should not be inserted in a woman with puerperal sepsis.

Need for back-up contraception: If the woman is less than 6 months postpartum, amenorrheic, and fully or nearly fully breastfeeding, no additional contraceptive protection is needed. Otherwise, a woman who is more than 21 days postpartum needs to abstain from sexual intercourse or use additional contraceptive protection for the next 7 days.

Postabortion: The LNG-IUD can be inserted within the first 7 days, including immediately post abortion. The LNG-IUD should not be inserted immediately after a septic abortion.

Need for back-up contraception: The woman needs to abstain from sexual intercourse or use additional contraceptive protection for the next 7 days unless the IUD is placed at the time of a surgical abortion.

Emergency Contraception (ECP)
Emergency contraception consists of methods that can be used by women after sexual intercourse to prevent pregnancy. Emergency contraception methods have varying ranges of effectiveness depending on the method and timing of administration.

Intrauterine device (Cu-IUD) The Cu-IUD can be inserted within 5 days of the act of unprotected sexual intercourse as an emergency

contraceptive. In addition, when the day of ovulation can be estimated, the Cu-IUD can be inserted beyond 5 days after sexual intercourse, as long as insertion does not occur more than 5 days after ovulation.

Oral ECPs: various agents and doses are listed in Table 2.

Table 2: Oral ECPs

Ulipristal acetate (UPA) 30 mg single dose
Levonorgestrel 1.5 mg single dose
Levonorgestrel 0.75 mg, two doses taken at a 12 hour interval
Yuzpe regimen 100 mcg Ethinyl estradiol plus 0.5 mg Levonorgestrel, two doses taken at a 12 hour interval

Oral ECPs should be taken as soon as possible within 5 days of unprotected sexual intercourse. An advance supply of ECPs may be provided so that ECPs will be available when needed and can be taken as soon as possible after unprotected sexual intercourse.

Initiation of Regular Contraception after ECPs: Any regular contraceptive method can be started immediately after the use of ECPs. The woman needs to abstain from sexual intercourse or use barrier contraception for 7 days (after LNG or combined estrogen-progestin) or 14 days (after UPA). A pregnancy test is indicated if the woman does not have a withdrawal bleed within 3 weeks.

Female Sterilization
Laparoscopic, abdominal, and hysteroscopic methods of female sterilization are intended to be irreversible, so all women should be appropriately counseled about the permanency of sterilization and the availability of highly effective, long-acting, reversible methods of contraception.

Hysteroscopic sterilization: The micro-insert system (Essure) is a metal and polymer micro-insert 4 cm long and 1-2 mm wide when deployed. It consists of an inner coil of stainless steel and polyethylene terephthalate (PET) fibers and an outer coil of nickel-titanium . It comes loaded in a single-use delivery system. The device is placed under hysteroscopic guidance in the proximal fallopian tube. The coil initially is in a tight state and then is deployed to an expanded state that anchors the insert in the tube. After placement, the PET fibers stimulate benign tissue growth that surrounds and infiltrates the device over the course of several weeks, resulting in tubal occlusion.

Before a woman can rely on hysteroscopic sterilization for contraception, a hysterosalpingogram (HSG) must be performed 3 months after the sterilization procedure to confirm bilateral tubal occlusion. The woman should be advised that she needs to abstain from sexual intercourse or use additional contraceptive protection until she has confirmed bilateral tubal occlusion.

Laparoscopic and abdominal approaches: A woman can rely on sterilization for contraception immediately after laparoscopic and abdominal approaches. No additional contraceptive protection is needed.

Vasectomy
Vasectomy is intended to be irreversible, so all men should be appropriately counseled about the permanency of sterilization and the availability of highly effective, long-acting, reversible methods of contraception for their women partners.
A semen analysis should be performed 8–16 weeks after a vasectomy to ensure the procedure was successful. The man should be advised that he should use additional contraceptive protection or abstain from sexual intercourse until he has confirmation of vasectomy success by post vasectomy semen analysis.

Standard Days Method
SDM is a method based on fertility awareness; users must avoid unprotected sexual intercourse on days 8–19 of the menstrual cycle.
Women with menstrual cycles of 26–32 days may use the method. They need to abstain from intercourse or use a barrier method of contraception for protection on days 8–19. If unprotected sexual intercourse happens during days 8–19, emergency contraception can be considered.
If women have two or more menstrual cycles of less than 26 days or more than 32 days within any one year, SDM is not appropriate because of a higher risk of pregnancy and other methods should be considered.

In conclusion, the *US SPR* addresses a select group of common, yet sometimes complex management issues around the initiation and use of specific contraceptive methods. While *US SPR* and *US MEC* provide helpful guidance, health care providers should always consider the individual clinical circumstances of each person seeking contraception.

REFERENCES

1. **Mosher WD, Jones J**. Use of contraception in the United States: 1982-2008. Vital Health Stat 23. 2010 Aug;(29):1-44. PubMed PMID: 20939159.
2. **Finer LB, Henshaw SK**. Disparities in rates of unintended pregnancy in the United States, 1994 and 2001. Perspect Sex Reprod Health. 2006 Jun;38(2):90-6. PubMed PMID: 16772190.
3. **Trussell J**. The cost of unintended pregnancy in the United States. *Contraception*. 2007 Mar;75(3):168-70. Epub 2007 Jan 18. PubMed PMID: 17303484.
4. Centers for Disease Control and Prevention: US Medical Eligibility Criteria for Contraceptive Use, 2010, MMWR, 2010; 59 (no. RR-4); 1-86 http://www.cdc.gov/reproductivehealth/UnintendedPregnancy/USMEC.htm
5. Centers for Disease Control and Prevention: US Selective Practice Recommendations for Contraceptive use, 2013, MMWR, 2013; 62(RR05);1-46 http://www.cdc.gov/reproductivehealth/UnintendedPregnancy/USSPR.htm
6. Centers for Disease Control and Prevention: *Sexually Transmitted Diseases Treatment Guidelines 2010,* MMWR, 2010; 59 (RR-12): 1-116 http://www.cdc.gov/std/treatment/2010/default.htm

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