Individualizing contraception

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Educational objectives

- Identify key components of individualized counseling regarding various contraceptive methods.
- Discuss common barriers and facilitators to selection and use of various contraceptive methods.
- List common indications for use of emergency contraceptives (ECs).

Continuing education (CE) material

This program will prepare clinicians to assist their patients in selecting the contraceptive option that best meets their own individual needs.

CE approval period

Now through May 31, 2015

Accreditation statement

This activity has been evaluated and approved by the Continuing Education Approval Program of the National Association of Nurse Practitioners in Women's Health (NPWH), and has been approved for 1.0 contact hours of CE credit, including 1.0 contact hour of pharmacology content.
Estimated time to complete this activity: 1 hour

Faculty disclosures

NPWH policy requires all faculty to disclose any affiliation or relationship with a commercial interest that may cause a potential, real, or apparent conflict of interest with the content of a CE program. NPWH does not imply that the affiliation or relationship will affect the content of the CE program. Disclosure provides participants with information that may be important to their evaluation of an activity. Faculty are also asked to identify any unlabeled/unapproved uses of drugs or devices made in their presentations.

Ms. Deal serves on the Speakers Bureaus for Merck and Actavis and on the Advisory Panel for Actavis. Ms. Moore has received fees for services related to nonpromotional activities from Actavis. Ms. Sutton has nothing to disclose.

Participating faculty members determine the editorial content of CE activities; this content does not necessarily represent the views of NPWH, Merck & Co., Inc., or Teva Pharmaceuticals. This content has undergone a blinded peer review process for validation of clinical content. Although every effort has been made to ensure that the information is accurate, clinicians are responsible for evaluating this information in relation to generally accepted standards in their own communities and integrating the information in this activity with that of established recommendations of other authorities, national guidelines, FDA-approved package inserts, and individual patient characteristics.

Successful completion of the activity

Successful completion of this activity, 13-09K, requires participants to: (a) read the learning objectives, disclosures, and disclaimers; (b) study the material in the learning activity; (c) during the approval period (now through May 31, 2015): 1. click on the link to the course and log on to the NPWH Online Continuing Education Center (**https://npwhcourses.globalclassroom.us/stratus/course/view.php?id=60**); 2. complete the online posttest and evaluation; 3. earn a score of 70% or better on the posttest; 4. print out the CE certificate.

Commercial support

This program is supported by educational grants from Teva and Merck.

Contributing clinicians

Content for this program was developed through an online forum in which core material was posted. Emails to clinicians registered with NPWH requested input from those who man-

age their patients' contraceptive needs in a variety of settings.

Based on feedback from these clinicians (*Box*) and from surveys developed by NPWH, this CE program focuses on strategies for clinicians to implement to provide effective contraceptive counseling for their patients. The aim is to address important public health concerns with which clinicians must deal in daily practice, including the following:

- The need for better contraceptives and better use of contraceptives, as evidenced by research showing high rates of contraceptive failure and unintended pregnancy;
- Underutilization of the most effective methods to prevent unintended pregnancy; and
- Ubiquity of patient and healthcare practitioner (HCP) barriers that limit contraceptive utilization and efficacy.

These clinicians provided input to the online forum: Susan Achen, DNP, MPH; Kathryn Ackerman, WHNP; Sarah Bansen, APRN; Suzanne Barron, NP; Jen Bayer; Kathy Blevins, APRN; Kristine Bohrmueller; Terry Buckley, APRN, WHNP; Susan Denys; Kelly Duffy-McKnight, CRNP; Vickie Ellis, RN; Eleanor Forbes, RN, WHNP-BC; Nancy Galyon, ARNP; Susan L. Geiger, RNC; Yukiko Giho, NP, RN; Carol Glascock, APRN, NP; Pam Golub, APRN; Bobbi Graef, APRN; Elizabeth Heavey, CMN, RN; Jennifer Hirchert; Maxine R. Horton, RN, WHNP, BSN, MSN; Lauren Hughes, WHNP-BC; Diane Judge, APN/FNP; Kris King, DNP, NP; Kathy Kise, NP; Jennifer Korkosz, MSN, APRN; Linda Kottmann, APRN; Barbara Lahut, NP; Pattie Mak; Sandra Malonado; Deirdre Marchetti, APRN; Elizabeth P. McGlothlin, FNP-BC; Fanny J. Mera, WHNP; Katherine K. Moore, APRN; Melanie Oddou, WHNP, MSN; Lindsay Pageant, NP; Coralie Pederson, NP; Susan Peppers, APRN; Suzanne Reiter, MM, MSN, WHNP-BC, FAANP, APRN; Sheila Rhodes, BS, MS, CNM, APRN; Anne Rosenberg, CRNP; Tracey Rubin, APN-C; Theresa Rundell, ARNP; Lastenia Ryan, WHNP; Iris Stendig-Raskin, CRNP; Lisa Stadalius, APRN; Janet Summerly, MSN, APN; Joan Swiatek, MS, APN-NP; Jane Tuitt; Susan Turner, ARNP; Cynthia A. Utic, RN; Samantha J. Wesner, CRNP; Jeanne Wilton, WNHP; Mary Woltjen, CNM, CRNP, RN, MS; Janice Workman, MSN, CNM; Deborah Wright, APRN

This activity also provides information about ECs. And the authors review three case studies illustrating the implementation of three key points: patient assessment, collaboration between patient and HCP to identify the most appropriate contraceptive option, and the importance of integrating ECs into contraceptive discussions.

Before reading the article, click here to take the pretest.

In this article, the authors focus on helping women choose a birth control method that will be the most suitable and effective for each of them—at each successive stage of their lives. Many useful tips regarding patient-centered counseling are offered. In addition, the authors discuss emergency contraceptives, including the products that are available and the ways that healthcare practitioners can explain these options to their patients.

KEY WORDS: **contraceptives, birth control methods, emergency contraceptives, counseling**

Contraceptive counseling: Why is it so important?

The disconnect between two seemingly contradictory facts—effective contraception is widely available, but almost half of pregnancies in the United States are unintended—highlights the need for better communication between healthcare practitioners (HCPs) and their patients about contraception and the development of strategies to increase patient adherence to and satisfaction with contraceptive regimens. Women also need more information about how to use and obtain emergency contraceptives (ECs).

Among the 6.4 million pregnancies that occur in the United States each year, 49% are unintended.[1] Of these unintended pregnancies, 29% happen earlier than desired and 20% happen after women have reached their desired family size. In addition, of these unintended pregnancies, 52% occur in the absence of the use of contraception, 43% occur with inconsistent or incorrect use, and 5% occur with consistent use and method failure. When asked about reasons for their nonuse of contraception, women report problems accessing or using methods (40%), infrequent sex (19%), lack of caring about whether pregnancy occurs (18%), underestimation of the risk of pregnancy (7%), and other reasons (16%).[1]

Contraceptives vary in terms of efficacy. Although all contraceptives are highly effective with *perfect use*, the most effective

What do patients say?

A survey of 133 female consumers conducted by NPWH reflects these individuals' experiences with and thoughts about contraceptives. The vast majority of respondents were aged 17 to 55 years. About 80% were married or in a serious relationship. More than 60% had completed college or graduate school. Among 126 respondents who indicated use of OCs, 69 (54.8%) reported that they did not always take their pills. The most common reason for nonadherence was forgetfulness (77.9%), followed by being "too busy" (20.2%), forgetting to renew a prescription (16.3%), cost (10.6%), transportation problems (9.6%), and a belief that they could not get pregnant (7.7%). Among a total of 117 women who responded to the question "How great is your chance of getting pregnant?" only 22 (18.8%) said that they needed to be careful with birth control in order to avoid a pregnancy. Among the 122 women who responded to queries about birth control options, 115 (94.3%) said that their HCP discussed OCs. Only 73 (59.8%) reported a discussion of IUCs, 46 (37.7%) of rings, 43 (35.2%) of injections, 30 (24.6%) of patches, and 22 (18%) of implants. Only 28 respondents (23%) reported that that their HCPs discussed ECs.

agents—the hormonal intrauterine contraceptive (IUC), the copper T-380A intrauterine device (IUD), and the subdermal implant—have high levels of efficacy with *typical use* because there is no user component that may result in incorrect or inconsistent use. Based on typical-use data, the oral contraceptive (OC), the vaginal ring, the patch, and the injection are less effective than IUCs and the implant—primarily because they require user actions and decision making. The least effective options are those that are *coitus dependent:* condoms, withdrawal, other barrier methods, and spermicides.[2] Of note, the highest levels of satisfaction with contraceptives are reported by users of IUCs and the ring.[3]

Forty-six percent of women discontinue a birth control method because of dissatisfaction.[4] To reduce this discontinuation rate, HCPs need to provide effective counseling. Such counseling requires asking patients about their goals and attitudes regarding contraception and then listening carefully to their answers. That way, HCPs can be confident that they are prescribing the form of contraception that will best meet patients' needs and with which they will be most satisfied. Reports suggest that inconsistent use of combined OCs (COCs)—that is, those containing an estrogen and a progestogen—is more common among women who are not completely satisfied with their method.[4]

Practical pearl: Patients worry about risks associated with contraception. To ease patients' worries, HCPs should put the risks associated with contraceptive use into perspective. Use of OCs is safer than getting into a car or becoming pregnant. The risk of death per year is 1 in 5,000 among auto accident victims and 1 in 6,900 from pregnancy. Among nonsmoking COC users, the risk of death is 1 in 1,667,000 for those aged 15-35 years and 1 in 33,000 for those aged 35-44 years.[5]

Healthcare practitioners must provide each patient with a knowledge base so that she can make informed decisions about birth control and birth control options. In the process, HCPs may need to correct deeply entrenched *misinformation*. HCPs also must provide anticipatory guidance about the use and the side effects of contraceptives and ECs. The bottom line: Patients need to leave the office knowing what to expect from the contraceptive they have selected and they need to know how to obtain and use an EC in the event of contraceptive mishap (e.g., torn condom, dislodged diaphragm) or nonadherence.

Strategies for selecting a contraceptive

Strategy 1: Set the stage for an effective visit. Although HCPs are pressed for time, they can obtain key information to help them partner with a patient and help her select the most appropriate contraceptive option for her before she even enters the examination room. When a patient calls to schedule an appointment with a goal of contraceptive counseling, she can be referred to the **Association of Reproductive Health Professionals method match website**. This website will enable the patient to become familiar with the options and evaluate them prior to her visit.

On standard forms that a patient completes in the waiting room, HCPs can include ques-

Practical pearl: It's important to talk about bleeding patterns so that women are aware that their periods may be lighter or that their patterns may become irregular with some methods.

tions about pregnancy plans. Do you desire a pregnancy within 1 year? Within 1-3 years? Within 3-5 years? Not for 5-10 years or more? Not at all? Her answer will help you narrow down the list of options. Next, ask the patient about her contraceptive history: What forms of contraception have you used? What did you like/dislike about each method?

Discuss contraception prior to the physical examination, while the patient is still clothed; she is unlikely to give you her full attention if she is trying to keep the paper drape closed. Have samples of the contraceptive products in the exam room so that the patient can see and handle them.

Strategy 2: Analyze perfect use versus typical use. The level of participation and decision making required of patients in the use of a contraceptive method accounts for the gap between perfect use and typical use. The more user participation that is needed (e.g., remembering to take a pill every day), the greater the gap between perfect use and typical use. Although all contraceptives used correctly and consistently offer excellent efficacy, first-year rates of unintended pregnancy associated with typical use range from 8% with OCs to less than 1% for long-acting reversible contraceptives (LARCs; i.e., IUCs and implants) that require no patient participation or decision making.[5]

Therefore, each patient should be asked about how she will manage the use of contraceptives that require daily, monthly, or quarterly actions on her part. Ask her, "If you choose condoms or OCs, will you be able to manage them? These forms of contraception take more work on your part. Conversely, a long-acting method frees you from having to think about it; put it in and forget it." The rate of non-LARC contraceptive failure is particularly high for adolescents. Among users of OCs, the patch, or the ring, the yearly failure rate in the first year of use is 8.2% among women aged 30 years or older and 13.4% among adolescents.[6,7]

Strategy 3: Teach patients that LARCs are more effective than other methods in preventing unplanned pregnancy, especially over time. Long-term use of agents that require decision making on a patient's part, as compared with long-term use of LARCs, is associated with increased risk of incorrect or inconsistent use and pregnancy. This finding was confirmed in a recent study of 7,486 women using LARCs (i.e., IUCs or implants) or another commonly prescribed contraceptive (OC, patch, ring, or depot medroxyprogesterone acetate [DMPA] injection).[7] The contraceptive failure rate among participants using non-LARCs—that is, OCs, the patch, or the ring—was 4.55 per 100 participant-years, as compared with 0.27 among participants using LARCs (adjusted hazard ratio [HR], 21.8; 95% confidence interval (CI), 13.7-34.9). Rates of unintended pregnancy were similarly low among participants receiving the DMPA injection and those using an IUD or an implant. In this investigation, for users of OCs, the patch, or the ring, the contraceptive failure rate increased over time, from about 5% in year 1 to nearly 8% in year 2 and more than 9% in year 3. LARCs, including DMPA, had failure rates of less than 1% for each of the 3 years. Therefore, the need for correct and consistent use of contraception should be reviewed at each patient visit, year after year.

I suggest the vaginal ring for a "quick start." You can show the patient how to put it in and take it out—it is very much like the old diaphragms. In general, once a woman realizes that she can't feel it when it is in place and that it is easy to insert and remove, she is interested in trying it. I find that women like it.

– Faculty

Strategy 4: Assess the options that best meet an individual patient's needs. Ask each patient how the methods that interest her will fit into her life—now and, in light of ongoing concerns regarding adherence, in the future. How will each method fit into her schedule? For example, how will she remember to take the pill or change the

If a patient comes in and requests OCs, I may say, "That's great; OCs may be the best method for you right now. But let me just tell you a little bit about some of the other choices." I ask her what she's heard about other methods to tease out and dispel myths. Sure, it's important to be time efficient, so perhaps I'd add something like "What people like about this particular method is…." and just provide several simply stated facts.

– Faculty

At each visit, HCPs should remind patients that their ovaries release a ripe egg every month, and that this egg has the potential to be fertilized by a sperm. Correct, consistent, and persistent use of a birth control method will interfere with this process and prevent pregnancy. Explain to patients that hormonal contraceptives temporarily stop the ovaries from releasing ripe eggs. Hormonal methods also thicken the cervical mucus, a particularly important mechanism for the progestin-only pill (POP). The mucus will start to thin at about 22 hours, so POP users will need to take their pills at the same time each day. You can describe the copper IUD as a device that releases a tiny amount of copper, which kills sperm, over a 10-year period as a way to prevent pregnancy.

– Faculty

patch? Which bleeding patterns will be acceptable? If, in the first few months, a patient does not know when bleeding is likely to occur, will this be a problem for her? Is privacy of the method a concern? Are there any financial barriers? If so, are there assistance programs or installment payment plans available? Review the patient's record for any conditions (e.g., dysmenorrhea, heavy menstrual bleeding, menstrual migraine, acne) that could be simultaneously managed by specific methods. Finally, determine whether the patient has any contraindications to any birth control methods. For example, use of combined hormonal contraceptives is contraindicated in patients with migraine with aura and in users of certain types of anticonvulsants.

In terms of condom use, I ask, "The last time you had sex, did you use a condom?" I find that this question is more likely to produce an answer that reflects the patient's behavior and provides an opportunity for effective counseling.

– Faculty

Strategy 5: Dispel myths, especially those related to IUCs. To dispel common misconceptions about IUCs, discuss their mechanism of action with patients. These devices prevent fertilization; they do not cause abortions.[2,8] Another myth to dispel is any association between IUC use and an increased risk of ectopic pregnancy. The contraceptive effectiveness of these devices is 99.9%; the risk of pregnancy is very small. In the event that pregnancy should occur, the possibility of an ectopic pregnancy is of concern, but the likelihood of such an occurrence is minute.[2,8]

Testing for sexually transmitted infections (STIs) in women scheduled to undergo IUC insertion is generally not done unless they are at risk for chlamydia and gonorrhea (e.g., women aged 25 years or younger). Risk of pelvic inflammatory disease is higher at IUC insertion only if a woman tests positive for chlamydia or gonorrhea.[2,8]

Strategy 6: Help your patient be successful in adhering to her contraceptive regimen. Once a woman has selected a contraceptive, help her be successful in its use. This checklist can help ensure that she has the tools she needs for success. Your patient...

- Leaves the office knowing, in simple terms, how the option she has selected works;
- Understands how to use the method correctly;
- Is aware of the side effects, which you have explained using simple terms;
- Knows the warning signs that signal potential complications and what her course of action should be;
- Understands the indications for EC use and knows where and how to obtain an EC;
- Realizes that, if she doesn't like her contraceptive choice, she can return to your office for assistance in choosing a different method that is better suited to her needs;
- Has resources to help her remember key points about the contraceptive she has chosen, including handouts and information about websites that provide accurate information;
- Knows that she will still need to protect herself against STIs.

Emergency contraception

Many HCPs are uncomfortable with the topic of emergency contraception and do not discuss it unless a patient asks about it. In patients' best interest, though, HCPs need to use every visit as

Practical pearl: We must present a menu of available options and discuss the pros and cons of each one. Selecting a particular contraceptive for a particular woman is a process based on a partnership between HCP and patient. Our job is to educate the patient about options that are appropriate for her in light of her history and other factors and to guide her in terms of making the best choice for her.

an opportunity to discuss contraception and the potential need for an EC. ECs are defined as contraceptives intended to prevent pregnancy within the first few days of unprotected sex. The most commonly used ECs contain oral levonorgestrel (LNG). Ulipristal acetate, a selective progesterone receptor modulator, is another oral EC. Another effective method of EC available is the copper IUD, which is used off label for this indication.

Levonorgestrel agents are available in two over-the-counter dosing regimens.[9-14] The one-tablet regimen contains LNG 1.5 mg. On label, this product is taken within 72 hours after unprotected intercourse, when it is most effective. Off label, it can be used up to 120 hours after intercourse. The second regimen is a two-tablet product that also contains a total of 1.5 mg of LNG (0.75 mg per pill). The package labeling states that one pill is taken immediately after unprotected intercourse and the second pill, 12 hours later. Off-label directions are to take both pills at once, preferably within 72 hours of unprotected intercourse. For both LNG regimens, greatest efficacy is achieved when the medication is taken within 72 hours of unprotected intercourse, but efficacy has been demonstrated up to 120 hours after unprotected intercourse. After EC use, a highly effective contraceptive should be started; a backup method (e.g., condoms) is needed for 7 days.

Ulipristal acetate 30 mg is available by prescription.[13-16] This product can be used during the first 120 hours after unprotected intercourse. Unlike other agents, ulipristal acetate maintains efficacy during the full 120 hours after intercourse. This EC, which is highly effective in obese women as well as their normal-weight counterparts, may be ordered from an **online prescription service**. After use, a highly effective contraceptive should be started; a backup method is needed for 14 days.

The **copper IUD** can provide emergency contraception within 5 days of unprotected intercourse. Although use of the copper IUD is off label for this indication, one advantage is that this product can then be retained as a long-acting contraceptive. Efficacy of this EC method was shown in a prospective study of 542 women who presented for emergency contraception.[17] The 1-year cumulative pregnancy rate in women choosing the copper IUD was 6.5%, as compared with 12.2% in those choosing oral LNG (HR, 0.53; 95% CI, 0.29-0.97; *P* = .041]. Thus, 1 year after presenting for emergency contraception, women choosing the copper IUD were half as likely as those choosing oral LNG to have a pregnancy.

> The more user participation needed with a contraceptive, the greater the gap between perfect use and typical use.

Strategy 7: Ensure access to ECs. Results of a 2013 patient survey by NPWH have shown that more than 75% of HCPs do not discuss emergency contraception with their patients. However, patients who find themselves in need of an EC should learn about it through communication with their HCP. Furthermore, a 2011 survey distributed to the email database of NPWH (N = 10,800) and completed by 699 clinicians showed important gaps in best practices in patient care among the respondents:

- 55.3% reported that they review EC options with each reproductive-aged patient.
- Although 88.2% of respondents said that they tell patients about LNG, only 26.5% reported discussing ulipristal acetate; 21.9%, the copper IUD; and 16.1%, the Yuzpe method.
- Only 44.3% of respondents said that they provide information and/or a prescription for an EC to all patients who do not desire pregnancy.

In view of the fact that 49% of pregnancies in the U.S. are unintended, HCPs are advised to review EC use and availability at each office visit by (1) explaining what EC does, how it works, and when to use it; (2) providing an anticipatory prescription; and (3) reviewing and dispelling myths about ECs. Concerns about ECs' mechanisms of action remain associated with major barriers to use.[14] Many women believe that ECs are abortifacients with long-term effects on health and fertility.[18] A patient's poor understanding of reproductive physiology may result in confusion as to

Many women worry that contraceptives will cause infertility. It's useful to remind them that birth control pills have been in widespread use for 50 years. Substantial data show that infertility is not a real risk. This conversation also provides an opportunity discuss factors that do cause infertility. You might say something along the lines of "birth control pills won't cause infertility. Chlamydia will cause infertility. How are you protecting yourself against that?"

– Faculty

when ECs are most effective.[19,20]

Case studies

Case 1: Tanya is 24 years old, is 5'5", weighs 121 lb (body mass index [BMI], 20.1 kg/m^2), and has no prior pregnancies or health problems. Tanya schedules a visit to request a different OC because of bothersome light bleeding for the past 3 months. She currently uses a COC containing ethinyl estradiol 20 mcg and norethindrone. Further discussion reveals that Tanya skips taking her birth control pill no more than once a week. She has had three male partners in the past 3 months and reports condom use about half the time. She reports smoking about 10 cigarettes a day.

Assessment. Begin by doing a workup concerning the abnormal bleeding, which may or may not be related to the COC regimen. Rule out pregnancy and STIs and perform speculum and bimanual examinations. Because Tanya has no mucopurulent cervicitis, discharge, or tenderness, and her test results are all negative, you conclude that the irregular bleeding is a side effect of the COC use. As you recall, the longer a patient uses a method, the more likely she is to use it incorrectly.

Counseling. Develop strategies to encourage correct and consistent COC use. In this case, consider changing formulations to reduce side effects. Review all the options with Tanya. Take this opportunity to discuss nondaily methods. Although Tanya is not a heavy smoker, remind her that her nicotine intake could be sufficient to induce breakthrough bleeding. Discuss safer sex and the importance of protecting herself from STIs. Review the indications for EC use. Make sure she knows how and where to obtain an EC. Provide a prescription for an EC product.

HCPs need to use every visit as an opportunity to discuss contraception and the potential need for an emergency contraceptive.

Patient decision. Tanya is interested in using a nondaily contraceptive and wants to try the ring. Discuss the use, side effects, and warning signs, and reinforce the fact that the ring will not protect against STIs. If the device is expelled or if Tanya is not punctual about replacing the ring, she will need to use an EC following unprotected intercourse. Schedule a follow-up visit to discuss Tanya's satisfaction with the ring. At a follow-up visit, Tanya indicates that she likes the ring and has had no episodes of unscheduled bleeding.

Case 2: Annette is 17 years old, is 5'7", weighs 220 lb (BMI, 34.5 kg/m^2), and has had no prior pregnancies. Annette has scheduled her appointment for contraceptive counseling and looks to you for advice.

Assessment. Annette's history includes obesity, migraine with aura, dysmenorrhea, and menorrhagia. Her partner uses condoms about half the time. She worries about weight gain with hormonal contraceptives. She is uncertain about her ability to remember to take a daily pill. Because of her migraine with aura, methods that contain estrogen are contraindicated. A patient with migraine without aura could use estrogen products as long as her blood pressure is monitored and her headache severity and frequency are not adversely affected. Progestin-only pills (POPs) would be a good option if Annette had indicated a willingness to use them consistently. DMPA can be associated with weight gain, which is already a concern for her.

The LNG intrauterine system (IUS) represents a good option because it may help alleviate Annette's cramping and bleeding, which would be likely to increase her satisfaction with this method. An implant might be a good choice, but she likes the longer duration associated with the LNG IUS. The 10-year duration of the copper IUD appeals to her, but she would like the reduction in menstrual problems that may result from use of the LNG IUS.

Patient decision. Annette selects the LNG IUS. Review the mechanism of action, side effects, and warnings, with an emphasis on the transitional bleeding interval. Although bleeding patterns will likely normalize within 3 months, tell her that it may take 6 months. This strategy accounts for the variability in duration and reduces the potential for frustration. Review safer sex and condom use at the initial discussion and before and after placement of the device.

Case 3: Regina is 44 years old, is 5'5", weighs 200 lb (BMI, 33.3 kg/m^2), and has no history of pregnancy. Regina has scheduled a visit for her well-woman examination. She has not been sexually active since her divorce, but she has started a relationship that she believes may become serious. Therefore, you initiate a discussion about contraception.

Assessment. Regina's history is unremarkable except for a cholecystectomy at age 30. Her menstrual history remains normal, with menses marked by predictable intervals, duration, and cramps, all of which indicate ovulation. She takes naproxen sodium for moderate to severe cramps. Regina has a demanding job in advertising and travels often, noting fatigue associated with erratic schedules and frequent time zone changes. Her variable schedule makes it difficult to sustain an exercise regimen. She indicates that she would like to exercise more regularly to lose weight. Regina and her husband got divorced 5 years ago; early in the marriage, they had decided not to have children. He underwent a vasectomy. A nonsmoker, she drinks wine 1-2 times a week in social settings.

Counseling. Regina does not use contraception. However, data show that unplanned pregnancy is most likely among younger and older women. Convey to Regina that in women of her age, pregnancy is associated with an increased risk for maternal mortality, spontaneous abortion, and fetal abnormalities. Discuss ECs, safer sex, and STI risk.

Patient decision. Based on her profile, Regina is eligible for any contraceptive, although the patch may be less effective because she weighs more than 198 lb. Other less-than-optimal choices are COCs or POPs because she has indicated that she has an irregular daily routine and schedule. She is most interested in an IUD; either the LNG IUS or the copper IUD is appropriate for her. She considers each option: 5-year versus 10-year efficacy and hormonal versus nonhormonal characteristics.

> Body weight may be an important consideration when choosing a contraceptive.

Regina wants to do some research on her own. Refer her to a reliable website such as www.arhp.org/methodmatch. She plans to start Weight Watchers and a swimming routine that she can implement in many of the hotels at which she stays. You and Regina decide that she will call you as soon as she makes her decision about which IUC to use, and that, in the meantime, she will keep condoms available for use if needed. At her next visit, Regina informs you that she has decided to use the copper IUD because she prefers a nonhormonal method.

A final word about contraceptives and weight gain

Two of the three cases discussed in this article involve women who are obese. Sixty-four percent of women in this country are overweight and 36% are obese.[21] Therefore, body weight may be an important consideration when choosing a contraceptive; some options may be associated with a tendency for weight gain and some may not be as effective in obese women.

In terms of the former concern, four randomized, placebo-controlled trials showed no evidence supporting a causal association between use of COCs or a combination patch and weight gain.[22] Results of a similar review were inconclusive with regard to progestin-only contraceptives.[23] However, a prospective study of 450 adolescents showed that among those using DMPA, those who were already obese gained significantly more weight than did their non-obese counterparts.[24] Also, the obese DMPA users gained significantly more weight than did obese COC users or obese nonusers of hormonal contraception. With regard to contraceptive efficacy, the patch may be less effective in women weighing 198 lb or more.[25] With regard to EC efficacy in obese women, ulipristal ac-

etate may be a better choice than LNG-containing ECs.[26]

Conclusion

Even though information about contraceptives is readily available in print and online, and even though contraceptives themselves are easily available and, in many cases, fully covered by health insurance payments to pharmacies, many adolescents and women are not using these products correctly, consistently, and persistently. HCPs, including nurse practitioners, can fill in the knowledge gap by making sure to discuss contraceptive needs with all their patients, and to find the product or products that will work best for them.

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