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MARCH 2019 Vol. 40, No. 3; p. 25-36

INSIDE

RELIAS MEDIA

Long-Acting Reversible Contraception: Progress Made, but Challenges Remain

In 2002, just 2.4% of U.S. women using birth control were using long-acting reversible contraceptive (LARC) methods, such as the intrauterine device (IUD) or the contraceptive implant. By 2014, about 14% of women using birth control reported LARC use.[1]

The increase in LARC method use has come in part as a result of research demonstrating its positive effect on unintended pregnancy and abortion. In the Contraceptive CHOICE project, 9,256 women 14-45 years of age received their choice of contraceptive method free of charge. About 75% of women chose long-acting methods, with significant results. The project researchers noted a significant decrease in unintended pregnancy and abortion rates among participants in the study compared to a similar population from the same region.[2]

In the Zika Contraception Access Network (Z-CAN), a program designed to prevent unintended pregnancies and decrease birth defects during the height of the 2016-17 Zika virus outbreak in Puerto Rico, 67.5% of 21,124 women chose a LARC method and received it during their initial visit.[3]

In the Colorado Family Planning Initiative, clients of Title X-funded clinics in 37 counties received no-cost access to LARC methods. Data indicate that the use of LARC methods increased from 5% to 19% among low-income young women and teens. Along with the increased use of LARC methods, investigators observed decreases in birth rates and abortion rates in both age brackets.[4]

Since the 2008 inception of the American College of Obstetricians and Gynecologists (ACOG) LARC Program, the program has worked to increase access to the full spectrum of contraceptive methods by connecting providers, patients, and the public with the most up-to-date information and resources on LARC, says **Eve Espey**, MD, MPH, professor in and chair of the Department of Obstetrics and Gynecology at the University of New Mexico in Albuquerque.

Financial Disclosure: Consulting Editor **Robert A. Hatcher**, MD, MPH, Nurse Planner **Melanie Deal**, MS, WHNP-BC, FNP-BC, Author **Rebecca Bowers**, Executive Editor **Shelly Morrow Mark**, Copy Editor **Josh Scalzetti**, and Editorial Group Manager **Terrey L. Hatcher** report no consultant, stockholder, speaker's bureau, research, or other financial relationships with companies having ties to this field of study.

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***Contraceptive Technology Update*® (ISSN 0274-726X), is published monthly by Relias LLC, 1010 Sync St., Ste. 100, Morrisville, NC 27560-5468. Periodicals Postage Paid at Morrisville, NC, and additional mailing offices. POSTMASTER: Send address changes to: *Contraceptive Technology Update*, Relias LLC, 1010 Sync St., Ste. 100, Morrisville, NC 27560-5468.**

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GST Registration Number: R128870672.

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Updated guidance concerning LARC use also has increased use of the method. The *U.S. Medical Eligibility Criteria for Contraceptive Use, 2016* classifies IUD use in women who have not had a baby and in adolescents (20 years of age or younger) as Category 2, indicating the advantages outweigh the risks. Implants are classified as Category 1 indicating no restrictions.

The insertion of the copper IUD or levonorgestrel IUD immediately after an induced or spontaneous first-trimester abortion is classified as Category 1. Insertion in the second trimester after abortion is classified as Category 2. Contraceptive implant insertion immediately after an induced or spontaneous first-trimester abortion or second-trimester abortion (using medication, uterine aspiration, or dilation and evacuation) is given a Category 1 classification.[5] Both the American Academy of Pediatrics and ACOG endorse the use of LARC for adolescents.[6]

Check ACOG Resources

The ACOG LARC Program's Postpartum Contraceptive Access Initiative offers an online resource hub, technical assistance, and comprehensive, individualized trainings, all free of charge. The initiative is designed to promote the success and sustainable implementation of immediate postpartum LARC services.

The immediate postpartum period can be a good time to provide long-acting reversible contraceptive methods. The prenatal care period is an ideal time for healthcare provider discussions with patients about long-term birth control in the immediate postpartum period. These counseling discussions should provide information on the advantages of LARC methods, IUD expulsion risks, contraindications, and alternative options to ensure informed decision making.[7]

LARC use is safe in the postpartum period. According to the *US Medical Eligibility Criteria for Contraceptive Use*, initiating IUDs and implants immediately postpartum has a Category 1 (no restriction for use) or Category 2 (the advantages generally outweigh the theoretical or proven risks) classification.[5]

Another free ACOG clinical resource is the ACOG LARC Program Help Desk, an online platform that offers individualized, expert technical assistance for clinicians on any LARC-related questions, including payment and reimbursement issues, coding, and clinical concerns. The Help Desk also includes information resources available for free access and download.

Clinicians also should check out ACOG's LARC video series. The series includes 25 short videos that provide overviews of various LARC-related topics and that were developed in collaboration with Innovating Education in Reproductive Health. The on-demand videos serve as content refreshers for experienced clinicians and educational tools for learners.

Focus on Shared Decision Making

Recently, many thought leaders have expressed concerns about potential contraceptive coercion and have proposed a lengthier patient-centered counseling model when providing LARC methods, notes **Anita Nelson**, MD, profes-

EXECUTIVE SUMMARY

In 2002, just 2.4% of U.S. women using birth control were using long-acting reversible contraceptive (LARC) methods, such as the intrauterine device or the contraceptive implant. By 2014, about 14% of women using birth control reported LARC use.

- The increase in LARC method use has come in part as a result of the research demonstrating its positive effect on unintended pregnancy and abortion.
- In presenting information about LARC methods and other contraceptive options, clinicians should strive to offer comprehensive, scientifically accurate information in a medically ethical and culturally competent manner to support patients in identifying the method that best meets their needs.

sor in and chair of the obstetrics and gynecology department at Western University of Health Sciences in Pomona, CA.

To reinforce the tenets of reproductive justice, the SisterSong: Women of Color Reproductive Justice Collective and the National Women's Health Network have developed the LARC Statement of Principles. National organizations, including the Society for Adolescent Health and Medicine, Advocates for Youth, and Physicians for Reproductive Health, endorse the principles that "commit to ensuring that people are provided comprehensive, scientifically accurate information about the full range of contraceptive options in a medically ethical and culturally competent manner to ensure that each person is supported in identifying the method that best meets their needs."[8]

In talking with young women about contraception, clinicians may want to use conversation openers such as, "I want you to know that I recommend these methods to all of my patients, regardless of their race, social class, or number of children; however, these methods might not be right for everyone, and I want to make sure we find the one that works best for you."[9]

It also is critical for healthcare professionals to self-evaluate how their personal biases may affect their contraceptive counseling methods with young people.[10]

Consider using questions such as "What matters most to you in a contraceptive method?" and "What are your preferences?" to support patients while reinforcing shared decision making.[10] (*Read more about reproductive justice tenets in* Contraceptive Technology Update's *June 2018 "Teen Topics" column, "Beyond Efficacy: Applying a Reproductive Justice Framework to Contraceptive Counseling for Young People," at https://bit.ly/2AP8iUB.*) ■

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In Memoriam: James Trussell, PhD

James Trussell, PhD, one of the original authors of *Contraceptive Technology* and member of the *Contraceptive Technology Update* editorial advisory board, died Dec. 26, 2018, following a brief illness.

Trussell spent his entire academic career serving on the Princeton University faculty. He was involved for 25 years with the University's Office of Population Research, serving as a faculty research associate from 1975 to 2015, and as director 1992-1998 and 2002-2011. He also was affiliated with the University's Woodrow Wilson School, serving as associate dean, acting dean, and multiple directorships of the school's MPA and PhD programs.

A Columbus, GA, native, Trussell earned degrees from Davidson College and the University of Oxford prior to his 1975 doctoral degree from Princeton University. He published three books prior to his graduation. The first book, *Doctor, Am I a Virgin Again?* featured a preface by soon-to-be president Jimmy Carter. *The Loving Book*, coauthored with Steve Chandler, sought to develop a new understanding of birth control and human sexuality, while *Women in Need*, coauthored with Robert Hatcher, focused on the need for family planning to alleviate the effects of unintended pregnancies.

Trussell's lifelong work centered around the study of demographic methods and mathematical models of population. He was involved in the publication of a series of seminal papers that developed model schedules of fertility and techniques for the indirect estimation of birth rates given incomplete data. His work spanned the breadth of reproductive health, looking at methods for estimating mortality, age at first marriage, the economic consequences of teenage childbearing, and spline interpolation of demographic data, natural fertility, and contraceptive failure. His contributions to papers on emergency contraception, contraceptive failure, and the cost-effectiveness of contraception were included in more than 350 scientific publications. He was a fellow of the Population Council, the Guttmacher Institute, and the Royal College of Obstetricians and Gynaecologists, and was named an honorary fellow at the University of Edinburgh and a visiting professor at the Hull York Medical School in England.

At the National Academy of Sciences, Trussell contributed to the work of the Committee on HIV Prevention Strategies in the United States, the Committee on Antiprogestins, the Committee on National Statistics, and the Committee on Population. He also was involved with the Panel on Data and Research Priorities for Arresting AIDS in Sub-Saharan Africa, the Panel on Monitoring the Social Impact of the AIDS Epidemic, the Panel on Census Methodology, the Panel on Census Requirements in the Year 2000 and Beyond, the Panel on the 1990 Census, the Panel on Immigration Statistics, the Panel on Small Area Estimation, the Panel on the 1980 Census, and the Panel on Latin America. He also served for seven years on the Council of the International Union for the Scientific Study of Population (1998-2005).

Trussell was a leader in the successful effort to get emergency contraceptive pills available to women, including teenagers, over the counter and without a prescription. He maintained a website about emergency contraception (not-2-late.com) and created a toll-free emergency contraception hotline. He was a member of the National Medical Committee of the Planned Parenthood Federation of America and a member of the board of directors of NARAL Pro-Choice America, the Society of Family Planning, the International Federation of Professional Abortion and Contraception Associates, and the Women on Web Foundation. In 2012, Trussell received the Felicia Stewart Lifetime Achievement Award from the International Consortium for Emergency Contraception and the American Society for Emergency Contraception.

In 2015, Trussell retired from Princeton University as the Charles and Marie Robertson Professor of Public and International Affairs. He remained active in the reproductive health field, serving as deputy editor of *Contraception* and continuing to publish in leading reproductive health journals.

"I first met James the summer before he went off to college, as he was working for the Muscogee County Health Department in its environmental services division," says **Robert Hatcher**, MD, MPH, professor emeritus of gynecology and obstetrics at Emory University School of Medicine in Atlanta and chairman of the *CTU* editorial advisory board. "He walked into my office and said he wanted to work the next summer with me in family planning."

"This led to 30 summer programs and 600 young people learning about the challenges of providing and using contraceptives — many of them went on to make this field their career," reflects Hatcher. "James lives on in my heart, and I will always consider him a dear friend." ■

Quick Start for Teen Contraception: What's Your Stance?

Family planning providers should develop ways to provide contraceptives to patients in one visit (known as Quick Start) for all methods, according to the Family Planning National Training Center's Contraceptive Access Change Package.[1] However, new research indicates that while most public-sector and private providers consider Quick Start for combined hormonal contraceptives and depot medroxyprogesterone acetate (DMPA) safe for use among adolescents, fewer private providers utilize the technique for this population.[2]

To perform the analysis, researchers at the Centers for Disease Control and Prevention mailed surveys to a random sample of 4,000 public health centers that provide family planning services and 2,000 office-based physicians. The 33-item questionnaire was designed to evaluate attitudes and practices among clinicians regarding providing contraception and applying federal guidance and recommendations about contraception.

The analysis indicates that 87.5% of public-sector providers and 80.2% of office-based clinicians consider Quick Start initiation of combined hormonal contraceptives to be safe for teens, with similar numbers indicating they thought it was safe for DMPA (80.9% and 78.8%, respectively). However, providers, especially office-based ones, indicated a lower use of Quick Start initiation of contraception methods. A total of 45.2% said they used the technique with combined hormonal methods, and 46.9% said they employed the tactic for DMPA starts.

Quick Start use fared better with public-sector providers: 74.2% indicated they used it with combined hormonal methods, while 71.4% did so with DMPA.

Providers generally perceive combined hormonal contraceptives and DMPA as acceptable contraceptive methods for adolescents, notes researcher **Isabel Morgan**, MSPH, who is now enrolled in the maternal and child health doctoral program at the University of North Carolina at Chapel Hill's Gillings School of Global Public Health. The current study allowed the study team to identify provider concerns about same-day initiation of these methods to adolescents, she said in a press statement.

EXECUTIVE SUMMARY

Family planning providers should develop ways to provide contraceptives to patients in one visit (known as Quick Start) for all methods, according to the Family Planning National Training Center's Contraceptive Access Change Package. New research indicates that while most public-sector and private providers consider Quick Start for combined hormonal contraceptives and depot medroxyprogesterone acetate (DMPA) safe for use among adolescents, fewer private providers utilize the technique.

- There is no medical reason for providers to require multiple visits routinely to start any contraceptive method if the *U.S. Selected Practice Recommendations for Contraceptive Use* criteria for excluding pregnancy are met.
- While the use of DMPA is associated with loss of bone mineral density, the loss appears to be significantly or completely reversible, evidence suggests. In most situations, the benefits of DMPA use will outweigh the theoretical fracture risks.

Guidance Backs Use

According to the Family Planning National Training Center's Contraceptive Access Change Package, providers of family planning services should develop systems to provide contraception in one visit for all contraception methods. This practice allows providers to help all patients, including women choosing long-acting reversible contraceptives (LARCs) such as intrauterine devices (IUDs) and implants, to leave the office visit with their chosen contraception method.[2]

Women should be offered the opportunity to begin a birth control method at the time of the office visit instead of waiting for their next menses or coming back for a follow-up appointment.[3] There is not a medical reason for providers to routinely require multiple visits to start a contraceptive method, provided the *U.S. Selected Practice Recommendations for Contraceptive Use* criteria for excluding pregnancy are met.[4]

What are those criteria? Providers can be reasonably certain that a woman is not pregnant if she does not have any pregnancy symptoms or signs and if she meets any of the following criteria:

- she has not had intercourse since her last normal period; OR
- she has been using a reliable contraceptive method correctly

and consistently; OR

• it is within seven days after her normal menses; OR

• the patient is within four weeks postpartum and is not lactating; OR

• it is within the first seven days after an abortion or miscarriage for the patient; OR

• the patient is completely or nearly completely breastfeeding, amenorrheic, and it is less than six months after childbirth.[4]

What About DMPA and Teens?

According to a 2014 American College of Obstetricians and Gynecologists Committee Opinion, DMPA's convenient dose schedule of four times per year makes it attractive to many women, especially adolescents. Although DMPA use is associated with loss of bone mineral density (BMD), the losses appear to be substantially or fully reversible, according to evidence, the guidance states.[5] However, the drug still carries a black box warning mandated by the Food and Drug Administration stating that prolonged DMPA use may result in significant BMD loss, the BMD loss is greater with longer use of the drug, and it may not be possible to completely reverse the BMD loss after discontinuing the drug.[5] This concern is not reflected in the *U.S. Medical Eligibility Criteria for Contraceptive Use, 2016*.[6]

The latest edition of *Contraceptive Technology* advises that providers counsel both adult and adolescent patients about the advantages and risks, including the black box warning, of DMPA use.[7] In most situations, the benefits of DMPA use will outweigh the theoretical fracture risks, it states. ■

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Research Focuses on Risk of Preterm Birth in Subsequent Pregnancy

Your next patient is a young mother who tells you her previous child was born preterm. What is your approach in talking with her about future pregnancies?

In new research, investigators analyzed the risk of preterm birth among women who had a previous poor pregnancy outcome. The results indicated that women had a higher chance of delivering before 32 weeks if their previous infant was born small for its gestational age. Those with a previous neonatal death were three times as likely to have a preterm birth subsequently, data indicated.[1]

Babies who are preterm, defined as born before 37 weeks of gestation, have higher rates of death and disability. Data from the Centers for Disease Control and Prevention (CDC) show that 17% of infant deaths in 2015 were attributed to preterm birth and low birth weight.[2] Infants who are born too early may experience breathing problems, feeding difficulties, cerebral palsy, developmental delay, vision problems, and hearing problems.

Preterm births are on the rise in the United States. The preterm birth rate (births at less than 37 weeks of gestation per 100 total births) in the United States rose from 9.57% to 9.85% during 2014-2016. According to the data, the rise in the total preterm birth rate reflects an increase in late preterm births (34-36 weeks), particularly in births that occur at 36 weeks.[3]

EXECUTIVE SUMMARY

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Researchers Reviewed California Births

To conduct the analysis, researchers looked at women in California in their second pregnancy who reported a previous full-term birth, but encountered a problem with their first birth. Investigators looked at the type of adverse pregnancy outcome these women experienced, as well as the timing of preterm births.

Data indicate that women had an increased risk of preterm birth if they previously had an infant who was small for gestational age, experienced placental abruption, or had an infant die within the first 28 days of life. According to the analysis, the risk of giving birth before 32 weeks was higher for women who had an infant who was small for gestational age. Women with a previous neonatal death were three times as likely to experience a preterm birth subsequently.[2]

Prevent Premature Births

What are some other steps that women can take to prevent preterm birth? According to the Centers for Disease Control and Prevention (CDC), counseling on the following steps is recommended:

- Discussing the importance of spacing the next pregnancy at least a year and a half from the woman's most recent baby. Initiate the most effective contraceptive method the same day of the visit.
- Stopping smoking. (To help women stop smoking, the CDC offers several resources, available at https://bit.ly/2J7hia0.)
- Avoiding alcohol and drugs.
- Receiving prenatal care as soon as the woman thinks she may be pregnant and throughout the pregnancy.
- Seeking medical attention for any warning signs or symptoms of preterm labor. Warning signs of early labor include contractions every 10 minutes or less; a change in vaginal discharge; pressure in the pelvic area; a low, dull backache; cramps that feel like a menstrual period; and/or abdominal cramps that occur with or without diarrhea.
- Discussing the use of progesterone treatment if the woman had a previous preterm birth.

Findings from a 2018 review suggest that consuming more omega-3 long-chain polyunsaturated fatty acids, found in fatty fish and fish oil supplements, reduces the risk of premature births. Data indicate that intake of such fatty acids decreases the risk of having a premature baby by 11%, reduces the risk of giving birth to an early premature baby by 42%, and drops the risk of having a small baby (defined as less than 2,500 grams) by 10%.[4]

Clinicians face challenges in attempting to predict delivery dates accurately for all types of pregnancies, especially in settings with limited resources. In pilot studies of pregnant women, data indicate that ribonucleic acid-based tests of maternal blood can predict delivery date and risk of early childbirth.[5] If proven successful in advanced trials, such tests could aid in decreasing the preterm birth rate in the United States.

According to preliminary research, the new blood test, developed by a team of researchers at Stanford University, detects within 75-80% accuracy whether pregnancies will end in premature birth. The same technique also can be used to estimate the gestational age of a fetus as reliably as and less expensively than ultrasound, researchers concluded.[5] ■

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Are Women Getting Screened for Cervical Cancer?

According to the latest recommendations for cervical cancer screening from the US Preventive Services Task Force, all women 21 to 29 years of age should be tested every three years with cervical cytology. For women 30-65 years of age, recommendations call for Pap test screening alone every three years, high-risk human papillomavirus (hrHPV) test screening alone every five years, or screening using both tests every five years.[1]

Regular screening for women 21-65 years of age significantly lowers the rate of cervical cancer and the number of deaths resulting from the disease.[2] A woman's age will help determine the most effective screening test for her, according to the Task Force's evidence search. Many HPV infections in women 21-29 years of age will resolve on their own; therefore, the Pap test is most effective in this age group.[3] HPV infections in women 30-65 years of age are more likely to lead to cancer; in this group, either Pap tests or hrHPV tests are effective screening methods, according to the evidence review.[4]

However, new analysis suggests that the percentage of women who receive cervical cancer screening may be smaller than national data reflect.[5] Less than 66% of women 30-65 years of age were current with their cervical cancer screenings in 2016. Just more than half of women 21-29 years of age had current screening during the same time period. Such numbers are lower than the screening compliance rate of 81% self-reported in the 2015 National Health Interview Survey.[6]

Such rates are "unacceptably low," says the study's lead author **Kathy MacLaughlin**, MD, a Mayo Clinic family medicine specialist. Screening routinely every three years using a Pap test or every five years using a Pap-hrHPV combination test makes sure that precancerous changes can be caught early so they can be monitored closely or treated, MacLaughlin said in a press statement.

Check the Numbers

To perform the analysis, Mayo Clinic researchers reviewed medical records using the Rochester Epidemiology Project, a records-linkage research project offering population-based medical research in Olmsted County, MN. By using the database, researchers were able to determine the cervical cancer screening rates for more than 47,000 women who were living in the county from 2005 to 2016. Investigators calculated three-year (Pap) and five-year (Pap-hrHPV) prevalence screening rates in proportion to eligible population, and used multivariable logistic regression to assess factors potentially associated with screening.

Statistics indicate that in 2016, 64.6% of 27,418 eligible women 30-65 years of age were current with cervical cancer screening, with 60.8% of them reporting Pap-HPV co-test screening. However, researchers observed significant declines in Pap completion rates over time in all age groups. Although Pap screening rates decreased, Pap-hrHPV cotesting significantly increased among women ages 30-65, rising from 10.0% in 2007 to 60.8% in 2016.[5]

Are All Women Being Reached?

The researchers reported that disparities by race, ethnicity, smoking status, and comorbidity level were observed among the current study's population, with African-American women 50% less likely to be current with cervical cancer screening than white women. Asian women were almost 30% less likely than white women to have up-to-date screening, they noted.[5]

Healthcare providers should consider new ways to reach patients and make sure they receive screening, says MacLaughlin. Options to expand access could include Pap clinics with appointments available in the evenings and on Saturdays, or availability of cervical cancer screenings at urgent care clinics, she notes. For women who are appropriate candidates for primary HPV screening, clinics also could explore the possibility of providing patients with kits for at-home testing. Recent research indicates that self-collected swabs are effective and may lead to increased access to testing.[7-8]

"We, as clinicians, must start thinking outside the box on how best to reach these women and ensure they are receiving these effective and potentially life-saving screening tests," noted MacLaughlin. ■

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Gabapentin May Offer Treatment Option for Vulvodynia

As you check the chart for the next patient, you note that she is complaining of burning, stinging, and irritation of the vulvar region. What possible diagnoses come to mind?

Consider vulvodynia, which is a chronic condition that causes pain and burning in the vulva in the absence of an infection or other known disease. The pain varies from mild to excruciating, and may be provoked, spontaneous, or both.[1] Although the condition is common, it is rarely diagnosed. Vulvodynia is estimated to affect 8-15% of women, research suggests.[2]

A review of available evidence indicates that many vulvodynia interventions do not exhibit strong effectiveness in reducing pain associated with the condition. Also, while many vulvodynia treatments may lessen vulvovaginal pain and associated sexual impairments, they do not eliminate them.[3]

Gabapentin, a medication that is approved as a treatment for nerve-related pain and other conditions, is being studied for use in treatment of vulvodynia.[4]

Previous studies have suggested that gabapentin decreases pain from fibromyalgia, notes the study's lead author, **Gloria Bachmann**, MD, MMS, director of the Women's Health Institute at Rutgers Robert Wood Johnson Medical School. Researchers theorized that reducing pelvic floor muscle pain might reduce vulvodynia pain overall and, thus, improve sexual function, she says.

A total of 230 women, with an average age of 37, participated in study. Most of them had experienced vulvodynia for more than five years. Those who received the study medication experienced less pain and reported improved sexual desire, arousal, and satisfaction after using the oral medication. However, overall sexual function remained lower than for women without the pain disorder.[4]

"We found that women with greater muscle pain responded better in terms of pain and improved arousal than those with less pain, which suggests that gabapentin be considered for treatment in women who have significant muscle tightness and spasm in the pelvic region," said Bachmann in a press statement.

Gabapentin's potential for abuse has sparked regulatory review in jurisdictions experiencing high rates of opioid addiction, since some opioid users may seek alternatives to their chosen drug. Since 2016, 14 of 51 U.S. states and jurisdictions have implemented legislative mandates that require pharmacovigilance programs, have amended rules and regulations, or are pursuing further avenues for tracking gabapentin use.[5]

Examine the Options

Many women may suffer with vulvodynia without knowing that their symptoms have a name and that they can be treated. Research indicates that about 60% of affected women seek treatment, and about half overall receive a formal diagnosis.[5]

Medical options come in the form of pills, injections, and topical treatments.

Use of local anesthetics prior to sexual intercourse may provide short-term pain relief.[6] Antidepressants, such as amitriptyline, desipramine, or nortriptyline, may help with the symptoms of vulvodynia. Most women require starting at a low dose with slow titration over a time period of weeks to a higher dose.[7] In some cases, application of estrogen cream to the vulva may help relieve vulvodynia symptoms, especially in perimenopausal women.

Physical therapy is another option for vulvodynia treatment. Physical therapy techniques can help relax tissues in the pelvic floor and relieve muscle and joint tension. Biofeedback also strengthens the pelvic floor muscles, which may help decrease pain.

To understand the pain experienced by women who present with vulvodynia, a comprehensive assessment is necessary, advised an expert committee convened at the Fourth International Consultation on Sexual Medicine in 2015.[8] The committee suggested progressing from less invasive to more invasive treatments.

How can clinicians advise women about relief of chronic vulvar pain? Consider the following suggestions from the American College of Obstetricians and Gynecologists:

- Wear underwear that is 100% cotton, and no underwear at night.
- Avoid pantyhose and undergarments that are tight-fitting.
- Avoid douching.
- Use mild soaps when bathing, and clean the vulva with water only.
- Do not use vaginal wipes or deodorants; avoid bubble bath.
- Do not use pads or tampons with deodorants.
- Use lubrication during intercourse.
- Apply cool gel packs to the vulva area to decrease pain and itching.
- Avoid exercises that put pressure directly on the vulva, such as bicycling.[9] ■

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Consider Vaginal Estrogen for Genitourinary Syndrome of Menopause

During menopause, estrogen deficiency can result in thinning of the vaginal epithelium. Women may experience vaginal dryness, itching, dyspareunia, and urinary symptoms. Although more than 33% of women 57-69 years of age report symptoms of vaginal dryness, more than half don't report such conditions to their healthcare providers, and far fewer take advantage of proven therapies such as vaginal estrogen tablets, creams, and rings.[1]

Since the 2002 publication of initial findings from the Women's Health Initiative (WHI), menopausal hormone therapy use has declined steeply among U.S. women as a result of anxiety and confusion regarding its safety. Although research has indicated that vaginal estrogen is a safe and effective treatment for genitourinary symptoms of menopause, such therapy is not prescribed as often as it could be.[2]

Results of a new study underline the safety of vaginal estrogen as a treatment for genitourinary syndrome of menopause.[3] For the study, investigators followed postmenopausal women from the Nurses' Health Study (1982-2012) who did not currently use systemic hormone therapy at the beginning of the study or during follow-up. They found that vaginal estrogen was not associated with an increased risk of cardiovascular disease, cancer, or

hip fractures. Researchers observed no statistically significant increase in any health outcome risk with the use of vaginal estrogen.[3]

Genitourinary syndrome of menopause is a prevalent condition that impairs sexuality and quality of life, and that tends to progress without treatment, says **Andrew Kaunitz**, MD, interim chair of the Department of Obstetrics and Gynecology at the University of Florida College of Medicine-Jacksonville and medical director of UF Health Women's Specialists – Emerson. The new study's data offers "reassuring information" regarding the long-term safety of vaginal estrogen, he states.

Neither the American College of Obstetricians and Gynecologists nor the North American Menopause Society suggest any time limits regarding duration of vaginal estrogen use, notes Kaunitz.[4] Both organizations suggest that in women with an intact uterus using vaginal estrogen, concomitant use of progestin is not appropriate, states Kaunitz.

Over-the-counter vaginal lubricants and moisturizers often are used as initial treatments for women with symptoms of genitourinary syndrome of menopause, says **JoAnn Pinkerton**, MD, NCMP, executive director of the North American Menopause Society. "Persistent symptoms often need therapies such as local vaginal estrogen, intravaginal dehydroepiandrosterone, or oral ospemifene," said Pinkerton in a press statement. "This study adds to a growing body of data showing the long-term efficacy and safety of low-dose vaginal estrogen, which works primarily locally with minimal systemic absorption."

Two low-dose estradiol creams, a vaginal ring, and a tablet are available in the United States for treatment of genitourinary syndrome of menopause. Creams may be applied not only intravaginally, but digitally to the vestibular tissues—introitus as well.

Data indicate that low-dose tablets, the vaginal ring, and creams have comparable efficacy in treating vulvovaginal symptoms.[5] Research suggests that vaginal estradiol may reduce the risk of recurrent urinary tract infections and overactive bladder symptoms in menopausal women.[6] The low-dose vaginal ring is approved to treat urinary urgency and dysuria.[7] In a systematic review, researchers evaluated current available evidence about the effectiveness and safety of vaginal estrogen products to treat genitourinary syndrome of menopause. The researchers concluded that commercially available vaginal estrogen therapies were effective and safe first-line therapies for moderate-to-severe genitourinary syndrome of menopause.[8]

Be sure to ask perimenopausal and postmenopausal women about any vulvovaginal or urinary symptoms at their comprehensive visits, the North American Menopause Society recommends. The society's free MenoPro mobile app helps patients and clinicians with shared decision making for managing menopausal symptoms. (*More information on the app is available at http://bit.ly/1X1eGyK.*) ■

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- Research probes reasons underlying HIV complications
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CONTRACEPTIVE TECHNOLOGY UPDATE®

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   a. Category 1
   b. Category 2
   c. Category 3
   d. Category 4

2. **According to the latest US Preventive Services Task Force cervical cancer screening recommendations, which group of women should be tested every three years with cervical cytology?**

   a. All women 18-21 years of age
   b. All women 21-29 years of age
   c. All women 30-45 years of age
   d. All women 50-65 years of age

3. **Recent research indicates what approach is not only effective, but also safe for the treatment of genitourinary syndrome of menopause?**

   a. Progestogen therapy
   b. Bazedoxifene
   c. Low-dose vaginal estrogen
   d. Raloxifene

4. **What is the most common sexually transmitted infection reported to the Centers for Disease Control and Prevention?**

   a. Gonorrhea
   b. Syphilis
   c. *Mycoplasma genitalium*
   d. Chlamydia

CME/CE OBJECTIVES

After reading *Contraceptive Technology Update*, the participant will be able to:

1. identify clinical, legal, or scientific issues related to development and provisions of contraceptive technology or other reproductive services;
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STI QUARTERLY™

A SUPPLEMENT TO CONTRACEPTIVE TECHNOLOGY UPDATE

New Report Makes Case to Act Against Skyrocketing STDs

Back in 1997, the title from the groundbreaking report, "The Hidden Epidemic," provided the perfect description of the limited degree of public awareness about sexually transmitted diseases (STDs) in the United States.[1] Fast forward to today, and the phrase still accurately depicts the STD landscape in the United States, according to a new review by the National Academy of Public Administration.[2]

Although STDs are preventable and treatable, rates of known infections of diseases such as chlamydia and gonorrhea are rising at alarming rates, the report states. Since 2013, chlamydia rates have jumped 22%, while gonorrhea rates have soared 67%. Rates for syphilis also have increased 76%, while congenital syphilis rates have risen 154%.[3]

> ALTHOUGH STDS ARE PREVENTABLE AND TREATABLE, RATES OF KNOWN INFECTIONS OF DISEASES... ARE RISING AT ALARMING RATES.

With STD rates increasing year after year and investment in prevention lagging, the public health field is "in crisis," says **David Harvey**, MSW, executive director of the National Coalition of STD Directors. The Coalition contracted with the nonpartisan, congressionally-chartered National Academy of Public Administration to undertake the comprehensive study.

"We must work collaboratively at all levels of government to prioritize increasing investments in public health," said **Michael Fraser**, PhD, CAE, FCPP, chief executive officer of the Association of State and Territorial Health Officials, in a press statement. "Limited resources for too long have significantly impacted state and local STD programs, leaving our nation with the highest infection rates in the industrialized world."

Six Actions Outlined

To develop the report, the academy formed an expert panel and a professional study team to collect and review available information concerning STD trends, as well as to analyze prevention and control efforts for chlamydia, gonorrhea, and syphilis. The principal focus rested on federally funded intervention programs and current funding mechanisms.

The expert panel developed six "Actions for Consideration" that will help stakeholders in the STD community inform a national action strategy for reducing STD transmission rates and improving public health.

The first item on the list calls for designating a national STD "champion" to coordinate federal, state, and local efforts to develop and implement a national STD strategy.

Previous public health leadership appointments related to disease eradication or control have resulted in naming a "czar," such as the AIDS Czar, the Bird Flu Czar, and the Ebola Czar, the report notes. Although the expert panel does not advocate an STD czar, it does recommend the appointment of an individual who can unify and harmonize policy across the disparate agencies that play a role in STD prevention and control. Such an individual should be empowered to align efforts, advocate for funding, and promote

EXECUTIVE SUMMARY

A new review by the National Academy of Public Administration makes a convincing case to act against skyrocketing sexually transmitted disease rates.

- Contracted by the National Coalition of STD Directors to compile the report, the nonpartisan group formed an expert panel and a professional study team to collect and review available information concerning STD trends. Experts also analyzed prevention and control efforts for chlamydia, gonorrhea, and syphilis.
- The expert panel developed six "Actions for Consideration" that will help stakeholders in the STD community inform a national action strategy for reducing STD transmission rates and improving public health.

research and innovation across all sectors.[2] Such authority is needed to reach across federal, state, and local government agencies, as well as different nongovernmental partners, to develop effective programs.

Secondly, the panel calls for changing the STD narrative. Sexual health needs to be reframed as an important dimension of health and wellness, with STDs seen as detrimental to health, with financial impacts on both individuals and society at large. Social stigma currently prevents some individuals from seeking STD treatment, and some medical professionals from screening for disease. In a national survey of men and women ages 15-44, just 47% of women and 23% of men with a history of recent sexual activity said they had received a sexual risk assessment from a doctor or other medical care provider in the past year.[4]

Unifying the Field

The third "Action for Consideration" calls for unifying the STD field. Steps are already under way, as a national STD action plan may be on the horizon, the report states. The Office of the Assistant Secretary for Health is spearheading a planning effort to develop a national STD action plan by early 2020. An interagency working group is forming, with outreach to state and local entities and nongovernmental operations. Federal, state, local, and territorial agencies/jurisdictions, nonprofits, and academic institutions must be included to develop such a plan.

In a field where numbers tell the story, the fourth "Action for Consideration" calls for improved data and further evaluation. Currently, STD reporting is dictated by state laws that call for local authorities to report to state public health entities, who then forward the data to the Centers for Disease Control and Prevention (CDC). The report terms this as an "unwieldy system" that requires the federal agency to rely on the ability of local entities to report cases. Because the data reported need to be standardized, so should the systems by which those data are shared and disseminated, the report states.[2]

The CDC is involved in a major program to upgrade the National Notifiable Disease Surveillance System, which collects information from states and territories for all notifiable diseases, including STDs. The project is aimed at strengthening and modernizing the infrastructure, as well as developing more efficient systems to put data to use.

Time to Raise Awareness

Not only is public awareness needed regarding STD prevention and treatment, but more training should be offered to clinicians about current guidelines. Currently, medical school curricula do not provide a suitable amount of education about STDs or sexual health, outside of obstetrics, gynecology, and other fields relevant to diseases like HIV, notes the report. Providers may not be considering STD screenings for high-risk patients or discussing risk factors and symptoms with them, as a result of such limited education, the report states.[2]

"Providers must be adequately informed on STD symptoms and risk factors and how best to ask about them to be proactive with their patients' health," the report states. "[The] CDC's planned effort to make the guidelines for STD screening readily available to medical providers through electronic health record applications is a positive step for expanding awareness among the medical community."

Increase Funding — STAT

The last "Action for Consideration" calls for expanded funding and resources, given the breadth of the national epidemic.

Local health departments play a critical role in the fight against STDs, says **Lori Tremmel Freeman**, chief executive officer of the National Association of County and City Health Officials. Freeman's organization surveyed its HIV, STI and Viral Hepatitis Sentinel Network in 2017 to assess the impact of existing or potential budget cuts. A total of 62% of agencies responded, representing varying jurisdictional sizes, geographic locations, and settings.

Most local health departments participating in the survey reported

stagnant or declining funds for HIV, STIs, and viral hepatitis services. Although the survey was not nationally representative, local departments reporting funding cuts noted that the services they reduced were most likely to affect disease surveillance and STI partner services, as well as HIV testing and hepatitis B vaccination. Almost half (43%) reported reductions in HIV, STI, and/or viral hepatitis program staffing levels. Public health nurses represented the greatest loss in staffing.[2]

"It's easy to see at the local level that, as with so many things, the brunt of the STD epidemic is borne by people already sidelined by society," noted Freeman in a press statement. "The report is clear — for the sake of public health and health equity, we need to do more to invest in STD prevention to address this epidemic." ■

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Scientists Focus on Rapid Chlamydia Test

When it comes to sexually transmitted infections (STIs), chlamydia remains the most common condition reported to the Centers for Disease Control and Prevention (CDC). Statistics indicate that more than 1.7 million cases were diagnosed in 2017, with 45% reported in young women 15 to 24 years of age.[1]

Just-released research findings indicate that a potential rapid chlamydia test delivers accurate results in about 30 minutes, which could allow patients to receive treatment right away.[2] Such point-of-care testing could help eliminate the need for follow-up appointments because patients would receive their treatment at the time of diagnosis, say researchers.

With current tests, patients usually receive results in 2-14 days. Research indicates that many patients may not return to receive results, counseling, and proper treatment.[3]

EXECUTIVE SUMMARY

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- With current tests, patients usually receive results in 2-14 days. Research indicates that many patients may not return to receive results, counseling, and proper treatment.

Scientists are making "significant progress" toward developing point-of-care STI tests that are sensitive, specific, and easy to read with a short wait time, says **Tiffani Bailey Lash**, PhD, director of the National Institute of Biomedical Imaging and Bioengineering in the National Institutes of Health. The institute provided funding for the current research, which was conducted by scientists at the Johns Hopkins University Center for Point-of-Care Technologies Research for Sexually Transmitted Diseases.

The goal is to provide test results quickly on a mobile platform, allowing patients increased options, states **Charlotte Gaydos**, DrPH, MPH, MS, professor of medicine in the Division of Infectious Diseases at the Johns Hopkins University School of Medicine. Gaydos serves as director of the university's Center for the Development of Point of Care Tests for Sexually Transmitted Diseases.

"A patient should be able to choose if he/she comes into a clinic, goes to a pharmacy, or takes a test at

home for STD diagnosis; the bottom line is to encourage people to get tested," said Gaydos in a press statement.

Examine the Results

The test used in the study is under development by binx health (formerly Atlas Genetics) of Boston. Participants in the study included women 14 years of age and older undergoing chlamydia screening or testing at clinics in Maryland and Ohio. Women provided self-collected vaginal swabs for testing and completed questionnaires regarding participants' attitudes about point-of-care testing. The analysis compared the performance of binx health's polymerase chain reaction, point-of-care assay to the Aptima Combo 2, a nucleic acid amplification assay manufactured by Hologic Inc. of Marlborough, MA.

For the study, participants self-collected samples on swabs in the clinic. A lab technician then placed each swab into liquid. Once they were transported to a clinical lab, the swabs were loaded into a disposable, hand-held cartridge for processing. Of the 296 women recruited for the study, results from 284 were available for the study, with 273 completing the questionnaire.

Data indicate that the sensitivity of the test was 83.9% (26/31 specimens; 95% confidence interval [CI], 70.9-96.8%) and the specificity was 98.8% (250/253 specimens; 95% CI, 97.5-100%). To allow for specimens with discrepancies in results, the adjudicated sensitivity was 92.9% (26/28 specimens; 95% CI, 83.3 to 100%) and the adjudicated specificity was 98.8% (253/256 specimens; 95% CI, 97.5 to 100%).[2]

> "THE BOTTOM LINE IS TO ENCOURAGE PEOPLE TO GET TESTED."

Women Asked About Self-Collection

Will women be amenable to a vaginal self-collected swab for testing? Most women (70%) in the current study said they preferred this practice if a point-of-care test were available. More than half (61%) indicated they would be willing to wait up to 20 minutes if they could receive treatment before leaving a clinic, while 26% said they would wait up to 40 minutes to receive test results.

Most study participants said they would be willing to pay $20 or less for a point-of-care test, and that they would be willing to share the test results with their partners.

"It was promising to see how well-received the test was among patients," said Lash in a press statement. "I think the world has been waiting for a POC [point-of-care] STD test and I am eager to be a part of continuing to develop new POC technology."

Johns Hopkins University researchers and binx health recently launched a clinical trial of the point-of-care test. Data from that study will be submitted as part of an application for Food and Drug Administration approval of the test. ■

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