CONTRACEPTIVE TECHNOLOGY UPDATE®

THE TRUSTED SOURCE FOR CONTRACEPTIVE AND STI NEWS AND RESEARCH SINCE 1980

INSIDE

JULY 2020 Vol. 41, No. 7; p. 73-84

Abortion Access Problems Arise During COVID-19 Pandemic

States shut clinics, prompting lawsuits

Healthcare providers have seen a surge of telemedicine during the pandemic, keeping patients home to reduce their risk of transmission of COVID-19. National medical organizations issued recommendations to suspend elective surgeries, and some states mandated some emergency changes. Not all state decisions were evidence-based.

For instance, one of the first changes eight states made when the COVID-19 pandemic hit was to temporarily close abortion clinics, claiming they were nonessential medical services. This led to lawsuits from the Center for Reproductive Rights and other organizations. *(More informaton is available at: https://bit.ly/3fX9qsg.)* Court rulings and agreements allowed for abortion care to continue in Louisiana, Oklahoma, Tennessee, and Texas. Other lawsuits were pending through mid-May 2020.

> "WE MUST CONTINUE TO ADVOCATE FOR SAFE ABORTION CARE AS AN ESSENTIAL HEALTH SERVICE FOR WOMEN SO THAT ACCESS CANNOT BE SO EASILY RESCINDED IN THE FUTURE."

By mid-May, Arkansas was the only state in which patients continued to face restrictions on care because of COVID-19-related policies, says **Ruth E. Harlow**, senior staff attorney for the Reproductive Freedom Project with the American Civil Liberties Union of New York. "Clinics in Arkansas remain open, but patients are severely hindered by the requirement

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

CONTRACEPTIVE TECHNOLOGY UPDATE®

***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.

SUBSCRIBER INFORMATION:
Customer Service: (800) 688-2421
customerservice@reliasmedia.com
ReliasMedia.com

MULTIPLE COPIES: Discounts are available for group subscriptions, multiple copies, site licenses, or electronic distribution. For pricing information, please contact our Group Account Managers at groups@reliasmedia.com or (866) 213-0844.

Back issues: $75. Missing issues will be fulfilled by customer service free of charge when contacted within one month of the missing issue's date.

GST Registration Number: R128870672.

ACCREDITATION: Relias LLC is accredited as a provider of continuing nursing education by the American Nurses Credentialing Center's Commission on Accreditation. Contact hours [1.5] will be awarded to participants who meet the criteria for successful completion. California Board of Registered Nursing, Provider CEP#13791.

Relias LLC is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians. Relias LLC designates this enduring material for a maximum of 1.5 *AMA PRA Category 1 Credits*™. Physicians should claim only credit commensurate with the extent of their participation in the activity.

This activity is intended for OB/GYNs, nurses, nurse practitioners, and other family planners. It is in effect for 36 months from the date of publication.

Opinions expressed are not necessarily those of this publication. Mention of products or services does not constitute endorsement. Clinical, legal, tax, and other comments are offered for general guidance only; professional counsel should be sought for specific situations.

AUTHOR: Melinda Young
EDITOR: Jill Drachenberg
EXECUTIVE EDITOR: Shelly Morrow Mark
EDITORIAL GROUP MANAGER: Leslie Coplin
ACCREDITATIONS DIRECTOR: Amy M. Johnson, MSN, RN, CPN

that they access COVID-19 testing and receive negative test results back immediately prior to surgical abortion procedures, although testing with quick results is not yet widely available," Harlow explains.

In Arkansas, officials created a rule that required anyone seeking elective surgery, including an abortion, to obtain a negative COVID-19 test 48 hours before the procedure. But at that time — April 27 — the state had limited access to testing, making it extremely difficult for asymptomatic people to obtain a test. *(More information is available at: https://bit.ly/3cI5fyD.)*

Reproductive health organizations have continued to provide women with full access to contraceptive and abortion care during the pandemic, but problems arose. Some access issues are tied to the logistics of continuing contraceptive counseling and care during a pandemic, but others are the result of new rules by state governments.

"As recent actions in Congress and several states have revealed, anti-choice politicians have been willing to exploit our current public health crisis to hinder access to comprehensive reproductive healthcare," says **Julie Rabinovitz**, MPH, president and chief executive officer of Essential Access Health in Berkeley, CA. "It's unfortunate and alarming that this needs to be said, but attacking a woman's ability to obtain essential health services during a global pandemic is unethical and absurd."

Healthcare access is vulnerable during a pandemic, and abortion access is particularly difficult, notes **Alice Mark**, MD, medical director of the National Abortion Federation (NAF) in Washington, DC.

"There are many places in the United States where the distance to get to abortion providers is extreme," Mark says. "When people are home with no money, no child care, no transportation, it makes it difficult to get to a clinic and access services."

The notion that abortion is not an essential service is incorrect, Mark says. "NAF and other organizations have said that abortion is an essential health service. It's very time-sensitive because any delay poses a risk to health," she adds.

As states began lifting restrictions for nonessential medical services, abortion care was expected to resume in the states that had deemed

EXECUTIVE SUMMARY

Some states used the COVID-19 pandemic to stop abortion clinics from operating, saying abortions were nonessential medical services. Lawsuits helped reopen some sites, but abortion access was limited.

- The Center for Reproductive Rights and other organizations sued states over their closing abortion clinics. Rulings and agreements led to some clinics reopening.
- A poll from the National Family Planning & Reproductive Health Association revealed that women need access to birth control measures to prevent or delay pregnancy during a pandemic.
- One option for some women seeking an abortion during crises in which access is an issue is a no-test medication abortion model that provides services through telemedicine and a mailed prescription.

abortion nonessential, says **Michelle Bayefsky**, MD, resident in obstetrics and gynecology at New York University.

"While it is relieving that women will no longer have to travel out of state to obtain a timely abortion, concern remains about women who may have tried to self-induce an abortion or may have advanced beyond the legal limit for an abortion, while abortion care was prohibited. Moreover, many women will now be having abortions weeks later than desired, exposing them to the pre-COVID norm," Bayefsky says. "We must continue to advocate for safe abortion care as an essential health service for women so that access cannot be so easily rescinded in the future."

The COVID-19 outbreak underscores the importance of ensuring people receive the care they need, Rabinovitz says.

"The current health and economic crisis has only highlighted the urgency of doing everything we can to make it easier — not harder — to get time-sensitive healthcare, including abortion and contraception," she says.

The results of a poll conducted by the National Family Planning & Reproduction Health Association indicated women believe access to birth control to prevent or delay pregnancy during a pandemic is essential. "Sixty-five percent of poll participants think that now is a bad time for individuals and couples to try to get pregnant," Rabinovitz says. *(The poll's key findings are available at: https://bit.ly/2T91nil.)*

One likely outcome to the abortion access upheaval is that reproductive health organizations will be better prepared for the next crisis. It also has spurred additional support for maintaining abortion services.

"Witnessing the repeal of abortion access during COVID-19 has spurred a number of states, such as Massachusetts, to state categorically that abortion care is an essential health service," Bayefsky says. "It is heartening to see physicians and politicians openly supporting access to abortion care. These actions will strengthen our ability to continue providing safe abortion care in the future."

The pandemic should spark states to swiftly adopt measures that expand access to birth control and support continuous use before the next crisis hits, Rabinovitz says.

"With the future of the federal contraceptive coverage mandate in question, strong contraceptive coverage laws are needed in every state to help ensure that women can get the method that works best for them, without having to worry about out-of-pocket costs," Rabinovitz adds. "Public and private health plans must also be required to cover a 12-month supply, dispensed at one time."

More infrastructure and resources are needed to improve abortion access, Harlow says.

"The unfounded and opportunistic restrictions we have seen point to the need to keep building infrastructure and resources all across the country to support patients' ability to travel to and access abortion care when they need it," Harlow says.

Another tactic is to increase access to medication abortions.

"As states across the country continue to enact draconian abortion restrictions and the COVID-19 public health emergency has greatly reduced provider capacity to provide hands-on services, there is an urgent need to expand access to early, safe medication abortion," Rabinovitz says. "We have to find ways to ensure that women are able to receive abortion care when and where going to a health center is no longer an option."

For instance, a no-test medication abortion model could reduce barriers to mifepristone and misoprostol. Instead of requiring women to visit an abortion clinic for an ultrasound or pelvic examination and blood tests, this in-person visit could be bypassed. For more than 15 years, international organizations have provided medication abortion to tens of thousands of patients by mail. They are screened only for medical history.[1]

"In every area of medicine, there's been a rapid expansion of the use of telehealth. It makes sense to apply this technology to abortion services," says **Daniel Grossman**, MD, professor in the department of obstetrics, gynecology, and reproductive sciences at the University of California, San Francisco. "There are lots of opportunities to continue this beyond the pandemic because patients in many parts of the country face significant barriers accessing abortion care."

"Medication abortion, at first, was multiple visits for patients," Mark adds. "Each patient needed quite a bit of testing before the abortion procedure, including an ultrasound, and many of these procedures are not needed."

Plus, clinicians can follow up with patients, remotely, after the procedure, she says.

Instead of patients returning to the clinic for an ultrasound, they can take a pregnancy test at home, Mark adds.

The no-test medication abortion model that Mark and co-researchers published could include these basic steps:

• **Patient selection.** Clinicians could specify an upper gestational age

limit of 77 days, as estimated from the first day of the last menstrual period. That limit is consistent with guidelines from NAF and Planned Parenthood Federation of America.

• **Pre-treatment lab testing.** The newest research suggests that the risk of Rh sensitization after early abortion is negligible, suggesting clinicians can forgo Rh typing.

• **Treatment regimen.** Providers dispense a standard regimen of 200 mg of oral mifepristone, and 800 mcg of misoprostol, vaginally or buccally. Patients also take an extra 800 mcg dose of misoprostol.

• **Follow-up.** To confirm pregnancy termination and to identify complications, clinicians can tell patients to take a high-sensitivity urine pregnancy test at home.[1]

"If a patient comes in, and she's sure of her last menstrual period and doesn't need an ultrasound or blood typing and is eligible for medication abortion, she can take the pills home with her," Mark says. "Follow-up can be provided remotely."

This model reduces the amount of time patients are in the clinic, making medication abortion practical during the pandemic. Even better, clinicians should be able to provide the medication abortion without clinic or pharmacy visits, Bayefsky says.

"To further reduce barriers to accessing abortion services — both during a pandemic and outside the pandemic setting — we should consider allowing patients with known gestational ages to have the medicine needed for a medication abortion mailed to their homes," Bayefsky says. "Combining telehealth with mailed prescriptions will make obtaining a medication abortion significantly easier for patients, and it will also reduce the need for in-person appointments during COVID-19."

Researchers of a multisite study are assessing medication abortion access via mailing prescriptions to people's homes, Mark says.

One barrier to offering women the option of having their medication abortion prescription mailed to their homes is a Food and Drug Administration restriction on how mifepristone is distributed, Mark adds.

More than a dozen states also ban the use of telemedicine for abortion care, Grossman says. "Outside of a study setting, most patients cannot receive the abortion medication that way. The real potential in the long run is to expand access to medication abortion, using a model that involves screening patients through telehealth, and then those who are eligible could receive the medication directly to their homes."

The pandemic has revealed the importance of helping women maintain access to contraceptives and abortion services through telemedicine.

"COVID-19 also has accelerated the need to adopt measures that support access to time-sensitive care through telehealth. Recent news articles have pointed to a surge in people using mobile apps to get their birth control delivered while stay-at-home orders are in place," Rabinovitz says. "The federal government and states have made progress in making telehealth care more accessible to low-income and uninsured patients."

But, it should not stop there: "We have to make sure the policy changes that have been made to date extend beyond our current public health emergency," Rabinovitz says.

"Our nation has come to realize that the COVID-19 pandemic has changed everything," says **Robert Hatcher**, MD, MPH, professor emeritus of obstetrics and gynecology at the Emory University School of Medicine in Atlanta. "This article demonstrates how the pandemic is being used by individuals opposed to abortion to make obtaining an abortion extremely difficult for some women." ■

REFERENCE

1. Raymond EG, Grossman D, Mark A, et al. Commentary: No-test medication abortion: A sample protocol for increasing access during a pandemic and beyond. *Contraception* 2020;101:361-366.

Associations and Regulators Recommend Guidelines for Reopening Clinics

Obstetrician-gynecologists should work collaboratively with hospitals and facilities to determine how quickly they will resume routine, in-person care, according to a position statement by The American College of Obstetricians and Gynecologists (ACOG).

ACOG recommends that practitioners develop testing methods relevant to their patient populations. More widespread testing, including testing of asymptomatic patients, might be necessary in the early phases of resuming routine care.

Clinics should maintain physical distancing as routine care resumes, ACOG said. "Practitioners and

facilities will also need to develop policies for use of masks and facial coverings," ACOG stated. "For example, in the early stages, policies should address whether all patients and clinicians will be masked during in-person encounters." *(The position statement is available at: https://bit.ly/2WsuDCL.)*

The Infectious Diseases Society of America (IDSA) convened a panel of clinicians, microbiologists, and other experts to develop diagnostic recommendations for SARS-CoV-2 nucleic acid testing.

"The overarching goal was to give guidance about who should be tested, when they should be tested, and how to interpret the results," said **Kimberly Hanson**, MD, MHS, chair of the IDSA's COVID-19 diagnostic guidelines expert panel and an associate professor of internal medicine at University of Utah School of Medicine. Hanson spoke about the IDSA's testing guidelines at a web conference on May 8.

The panel made 15 recommendations, mostly around testing for patients with symptoms or who were exposed to people with COVID-19. The panel also included a recommendation to test asymptomatic individuals, who have no known exposure to COVID-19, before they undergo major, time-sensitive surgeries. The testing should be performed within 48-72 hours of the procedure. *(The guidelines are available at: https://bit.ly/2y8vr6i.)*

The panel experts recommended that clinicians consider deferring nonemergent surgeries for patients who test positive for the virus. The panel recommends against testing patients who are asymptomatic, have not been exposed to the virus, and whose communities have a low prevalence rate of COVID-19.

"While there was relatively easy consensus around testing asymptomatic patients, there was a lot more discussion about asymptomatic patients," noted **Angela Caliendo**, MD, PhD, FIDSA, a member of the IDSA COVID-19 diagnostic guidelines expert panel. She also spoke at the May 8 web conference.

The recommendations to test asymptomatic surgery patients are based on the desire to protect healthcare workers and to protect patients. "There is data in the literature about patients who underwent major surgeries and had COVID-19, and didn't have as good of outcomes," said Caliendo, professor and executive vice chair of Alpert Medical School's department of medicine at Brown University in Providence, RI.

EXECUTIVE SUMMARY

The American College of Obstetricians and Gynecologists (ACOG) and the Infectious Diseases Society of America (IDSA) offered guidelines for how physician offices, clinics, and other facilities can reopen to in-person, nonessential services in the next phase of the pandemic.

- IDSA recommends testing for COVID-19 in asymptomatic individuals before major, time-sensitive surgeries, and deferring nonemergency procedures for patients who test positive.
- According to ACOG, practitioners should use testing methods relevant to their patient populations.
- Social distancing should continue through the summer, with clinics limiting the number of patients in waiting rooms.

It is important for healthcare organizations to assess the effect of COVID-19 on their own cities, states, and regions before creating phase-in plans. For example, some regions have had better access to personal protective equipment (PPE) and supplies because of better planning.

"In my own region of Seattle, a lot of us have prepared for this, saw it coming, and we built capacity," said **John Lynch III**, MD, MPH, a member of the IDSA board of directors. Lynch spoke at an IDSA web conference on April 17.

Regions with adequate COVID-19 testing kits likely have better data on infection rates. This information can help a clinic decide how quickly to phase in full clinic services.

"I see some level of social distancing moving on quite a ways into the future because we do not have all the data we need," said Lynch, associate professor at the University of Washington department of medicine, division of allergy and infectious diseases, and associate medical director of Harborview Medical Center. "We do not have a coordinated process for this, so I do not know what proportion of people in my community have COVID-19."

Summer 2020 likely will see decreased levels of social distancing. But from a healthcare facility's perspective, there should be a slow and deliberate return to previous in-person services. PPE and more diligence with infection control measures are necessary, he noted.

"There is a risk we'll bump back up [in COVID-19 cases] when we see a relaxing in social distancing, and we need to be able to respond to that," Lynch predicted.

The Centers for Disease Control and Prevention (CDC) recommends that healthcare facilities monitor the CDC COVID-19 website and

state and local resources for updated information about the pandemic in each state. *(Find out more at: https://bit.ly/2Z23iJ9.)* The CDC also recommended healthcare organizations take these steps:

• Develop or review the emergency plan and prepare for alternative staffing during a crisis that affects employees' ability to return to work;

• Partner with public health and key local healthcare providers to learn more about sharing supplies and managing patients;

• Create an emergency contact list that is updated continuously, and know how to contact the local and state health department in an emergency. *(Find out more at: https://bit.ly/2T5pY7E.)*

The American Medical Association (AMA) also has created a checklist for reopening physician practices, including best practices and criteria that are helpful to any healthcare provider or clinic.

For example, the AMA recommended providers open incrementally. They should continue to provide telehealth and other modalities when feasible and begin opening with a few in-person visits a day, working on a modified schedule, the AMA suggested. Administrative staff could continue to work remotely and employees could be brought back in phases, such as working on alternate days or different parts of the day to reduce contact. *(The checklist is available at: https://bit.ly/2T5jup8.)*

The AMA checklist includes safety measures for patients, as well as ways to ensure workplace safety for clinicians and staff. These include screening patients and employees for high temperatures and other symptoms of COVID-19, and minimizing staff contact. Clinics also could minimize the number of people touching the same equipment, and limit nonpatient visitors in waiting rooms.

Family planning clinics could continue to provide telehealth consultations and follow-up care, as they have during the crisis period. This will help reduce the number of in-person visits at each facility.

"In all areas of medicine, telehealth will play a larger role," says **Daniel Grossman**, MD, professor in the department of obstetrics, gynecology, and reproductive sciences at the University of California, San Francisco.

Telemedicine will continue partly because clinics, as they reopen, will need to continue social distancing and limiting the number of patients in the waiting room, Grossman says.

As the nation reopens to elective surgeries, nonemergency in-person clinic visits, and other nonessential business and shopping, reproductive health providers and others should keep in mind that the virus could easily resurge in various places.

Cities will be prepared for outbreaks, but these also could occur in more rural areas. Some of the earliest cases of COVID-19 occurred in small communities, including ski resort towns in Utah, and Native American communities. Rural areas and small cities are particularly susceptible to the pandemic because one infected person who attends a town event could infect many people in the area.

"What we're seeing is a lot of disease in small cities that don't have the medical care we have in big cities," said **Andrew Pavia**, MD, FIDSA, chief of the division of pediatric infectious diseases at the University of Utah School of Medicine. Pavia spoke about COVID-19 outbreaks at an IDSA web conference on April 21.

"We're not seeing one epidemic nationwide, or statewide," Pavia explained. "In Utah, we've done a good job of clamping down on the rate of the rise, where it looked like cases were starting to decline, but now are back up to what it was because of micro-outbreaks that are occurring."

Family planning clinics should keep this phenomenon in mind when scheduling and screening patients, especially if they are making decisions about when to require previsit COVID-19 testing.

Healthcare workers cannot assume patients arriving from less populated areas are safe from infection, says **Angela Hewlett**, MD, MS, FIDSA,

associate professor in the division of infectious diseases at University of Nebraska Medical Center, and medical director of the Nebraska Biocontainment Unit.

"Living in a rural area has some advantages for battling a disease like this. People are naturally socially distanced and are living in single-family homes, spread out, and with no mass transit," Hewlett explains. "But it also makes it a uniquely vulnerable population for an outbreak like this. The whole town might attend one large town gathering." ■

Contraceptive Implants Are an Option for Patients Taking Isotretinoin

When clinicians prescribe the acne medication isotretinoin, they advise reproductive-age women to avoid pregnancy through two different contraceptives and an online iPledge app.

Since the drug causes severe birth defects, it is important young women do not become pregnant while taking the drug, says **Aaron Lazorwitz**, MD, MSCS, assistant professor of obstetrics and gynecology at the University of Colorado Anschutz Medical Campus division of family planning in Aurora, CO.

Etonogestrel contraceptive implants could be one contraceptive option for women taking isotretinoin, but there are concerns the acne drug would decrease the effectiveness of hormonal contraceptives.

"What's interesting about this drug [isotretinoin] is there's some data in the literature that it can promote enzymes in the liver that break down other drugs," Lazorwitz says.

For this reason, the Food and Drug Administration states in prescribing information for isotretinoin that a "drug interaction that decreases effectiveness for hormonal contraceptives has not been entirely ruled out for isotretinoin."[1]

Investigators conducted a prospective study of women, ages 18-45 years, who planned to take isotretinoin while using an etonogestrel contraceptive implant. They collected participants' blood samples before starting the acne medication to measure their baseline serum etonogestrel concentration.[1]

"We took women who had an implant for birth control and take isotretinoin for acne and measured the hormone released before and during treatment to see if we could see a similar effect. Fortunately, we did," Lazorwitz says. "We didn't find that it caused the levels to drop."

The cutoff for etonogestrel contraceptive implants to effectively prevent pregnancy is 90 picograms per milliliter (90 pg/mL) of serum etonogestrel concentration, he says.

"Below 90 pg/mL, women might ovulate, and the contraceptive might not work as well," Lazorwitz explains. "We didn't find that problem; all eight participants kept their levels above 90."

The study participants used the implant for varying amounts of time. Some had it implanted for a month, while the longest one had been in place for 27 months. Despite these differences, the amount of serum etonogestrel concentration was consistent.

"You'd be worried the longer it is implanted, it runs out of the drug more, but we didn't see that at all," Lazorwitz says.

None of the participants became pregnant. "We were happy to see that," Lazorwitz says. "We don't want adolescents and young women using this medication to get pregnant."

The results should reassure clinicians and women that the drug interaction between etonogestrel implants and isotretinoin will not be significant, he adds. "We only looked at implant users and can't generalize beyond the implant," Lazorwitz says.

The three-year implant is a highly effective contraceptive with a 99.7% success rate, he adds. "It goes in the arm over the triceps muscle," Lazorwitz says. "Like an IUD [intrauterine device], it works without the person having to do anything, which is why those are the most effective methods."

This pilot study suggests it is safe for clinicians to prescribe etonogestrel contraceptive implants for women on the acne drug.

"We can reassure people, when talking about options for birth control and when they want to take isotretinoin, that the implant works great," Lazorwitz says. "Their second birth control method could be a barrier method: a condom, diaphragm, or spermicide." ■

REFERENCE

1. Lazorwitz A, Seale R, Davis A, et al. A pilot study on the effect of isotretinoin on serum etonogestrel concentrations in contraceptive implant users. *Contraception* 2020. doi:10.1016/j.contraception.2020.04.011. [Epub ahead of print].

Study: Copper IUDs Do Not Appear to Prevent Implantation or Increase HIV Risk

For decades, clinicians and the public assumed that copper intrauterine devices (IUDs) prevented pregnancy by preventing implantation. There also was fear that IUDs could increase a woman's risk of HIV infection. Results of a new study suggested these assumptions are incorrect.

"A key point of the paper is we always assumed, from the 1980s on, that the IUD was preventing implantation, but that's never been proven," says **Karen Smith-McCune**, MD, PhD, professor emeritus in the department of obstetrics, gynecology, and reproductive sciences at the University of California, San Francisco.

One theory was the egg could not be fertilized because of the spermicidal effects of the copper IUD. "But there's been this dogma in the field that maybe the way these devices work is they prevent implantation of a fertilized egg, in which they would be like abortifacients," Smith-McCune says.

The data suggested this is not true — at least for the copper IUD.[1] "What has been shown is the egg quality and sperm viability are impaired," she says. "But you can't argue there is an effect on implantation, especially for the copper IUD, because it looks the same midcycle for any woman who was without contraception." The study's findings suggested that implantation could occur normally if the egg was fertilized, she adds.

According to the authors of the 2019-2020 edition of *Managing Contraception*, the copper IUD works primarily as a spermicide. "Copper ions inhibit sperm motility and acrosomal enzyme activation so that sperm rarely reach the fallopian tube and are unable to fertilize the ovum. The sterile inflammatory action created in the endometrium phagocytizes the sperm," the authors wrote. "Experimental evidence suggests that the copper IUDs do not routinely work after fertilization. They are not abortifacients."[2]

In the cross-sectional study, Smith-McCune and colleagues compared transcriptome from the endometrium or cervical transformation zone from four groups of women, including a control group that used no hormonal or intrauterine contraception. The other groups used levonorgestrel combined oral contraceptives, copper IUDs, and a levonorgestrel-releasing intrauterine system.[1]

Researchers pursued the study to investigate whether different contraceptives had different effects on HIV infection, Smith-McCune says.

In previous research, investigators found that women using Mirena, the levonorgestrel-releasing intrauterine system, experienced a huge inflammatory signal. "We didn't know whether that was from the foreign body or hormone in the contraceptive," she adds. "We compared these different molecular signals from the endometrium in those three contraceptive groups and a hormonal group."

Investigators collected samples from women in their post-luteal phase. "Our hypothesis was the IUD groups would look the same: inflammation from having a foreign body," Smith-McCune says. "The results were the opposite."

Results from women using the copper IUD looked exactly like thos of the control group, she adds.

Women using a hormonal IUD experienced inflammation, indicating that the foreign body was not the pivotal mechanism by which the devices worked, Smith-McCune says.

"I think the results present a counterargument to resistance to the IUD," she notes. "Policymakers who are resistant to IUD use can take our data as evidence that strongly suggests it is not preventing implantation."

Researchers also were concerned about the inflammation making women more susceptible to HIV infection, but this proved untrue. "We did more studies on that, and we found there was no difference in infectivity itself with women using Mirena compared to women in controls," Smith-McCune says. "We were relieved by that; women [who use IUDs] are not at more risk of HIV."

The study's takeaway message is the presence of a foreign body is not enough for contraceptive effectiveness. The release of copper causes sperm toxicity, the IUD's main mechanism of action. The presence of a hormone in levonogestrel IUDs works by causing cervical mucus thickening, preventing sperm from entering the fallopian tubes.

"The overarching theory was that having this foreign body made IUDs work. Our results suggest this is unlikely to be correct," Smith-McCune adds. ■

REFERENCES

1. Smith-McCune K, Thomas R, Averbach S, et al. Differential effects of the hormonal and copper intrauterine device on the endometrial transcriptome. *Sci Rep* 2020;10:6888.
2. Hatcher RA, Haddad L, Zieman M, et al. *Managing Contraception 2019-2020*.15th ed. Bridging the Gap Foundation; 2019.

Servicewomen Experience Barriers to Contraception

A follow-up survey of United States servicewomen and their access to contraceptives during their deployment revealed both good and bad news. Some women reported greater access to contraception, while others experienced barriers to obtaining contraceptives in the weeks leading up to their deployment.[1]

"Many servicewomen reported difficulty to getting an appointment for contraceptives prior to being deployed," says **Jane Seymour**, MPH, senior project manager with Ibis Reproductive Health in Cambridge, MA. "Other participants noted that the free and low cost of contraceptive coverage was a huge facilitator to their use of contraception."

The proportion of women who found contraceptive access easy vs. those who experienced difficulties was nearly equal: 51% said it was somewhat or very easy, and 49% said it was somewhat or very difficult.

Investigators asked study participants open-ended questions to learn more about the barriers they experienced. The most common barriers included difficulty getting an appointment to discuss contraceptives with a healthcare provider, military system issues like transferring medical records, and privacy concerns. For example, one participant noted that her provider did not permit appointments for contraception, and she had to show up for a sick call instead, Seymour says.

"It was the way the military organized appointments that was challenging for this respondent," she adds. "We believe that regardless of the proportion of people who were able to access contraception, if any individual who wishes to obtain contraception is unable to do so, it is an issue."

Scheduling barriers included clinics that only offered contraceptive counseling and services on certain days of the week, which did not always fit particular servicewomen's schedules, Seymour says. Another issue that some women raised was their inability to obtain a full supply of contraceptives prior to their deployment.

"Other women cited that as a facilitator — they were able to get a full supply of birth control pills, and that facilitated their use," Seymour says. "Some people had access more than others. We were not able to parse whether it changed by branch or rank, but it was something we noted."

This is something the military could change through policy, she notes. "I think a recommendation we would have is to ensure that all people going into a deployment setting are able to obtain a full contraceptive supply for their tour," Seymour says.

Researchers asked women participating in the study whether they thought they had access to all contraceptive options. Some indicated they had difficulty obtaining their desired method, such intrauterine devices (IUDs) and other long-acting, reversible contraceptives.

"We've seen that in past studies around the military that in certain settings there might not be a provider who is able to place an IUD," Seymour says. "There have been barriers to certain methods in the past."

The No. 1 reason servicewomen chose to use contraception was to suppress menstruation, according to the 2019-2020 edition of *Managing Contraception*. "Menstrual suppression is more important than contraception for some servicewomen," the authors wrote.[2]

Other barriers included limited access to the vaginal ring because of refrigeration requirements, and prohibitions on sex during deployment. One active-duty Army enlistee said she could not use her vaginal ring during deployment because of refrigeration problems. She did not want the long-acting shot because of concerns about weight gain. Her provider refused to prescribe her any other medication. "The nurse practitioner that I saw then wouldn't prescribe me anything, because she didn't see why I needed it," the woman reported. "Finally, I said I was deploying with my husband, and she relented and gave me a birth control pill prescription."[1] This experience suggests access issues due to sexism or patriarchy, Seymour says.

One-fourth of the study population said they used an IUD, but some participants faced access barriers. According to an Air Force officer, deployed locations do not keep a large stock or variety of birth control pills, and they cannot insert IUDs. When the officer asked for a specific brand because of health concerns with other types of contraceptive medications, she felt as though her pharmacist treated her as a "problem child."[1]

A recent military mandate calls for counseling prior to a contraceptive appointment, Seymour says. "We recommend, as this new contraceptive counseling mandate is rolled out, that there is a need for rigorous evaluation of the mandate to make sure it's implemented and providers are giving comprehensive, noncoercive counseling about side effects. Counseling should help service members find the best fit for their needs."

In some ways the study's results are unsurprising, Seymour says. "We at Ibis remain concerned that service members continue to face unnecessary barriers to birth control before deployment," she explains. "Many of the findings reflected what we found in previous studies and reflected common sense: When contraceptives are lower cost and easier to access, they're more utilized."

The barriers related to the military's chain of command remain a concern. Military healthcare leaders should work to identify ways to improve contraceptive access for all service members, Seymour says.

"One neat piece about this analysis is it points to both barriers and facilitators to access," she adds. "As we consider ways to improve contraceptive access for deployed service members, it points to difficulty getting appointments, and it points to facilitators, including lower cost and ease of appointments." ■

REFERENCES

1. Seymour JW, Fix L, Grossman D, Grindlay K. Contraceptive use and access among deployed US servicewomen: Findings from an online survey. *BMJ Sex Reprod Health* 2020. doi:10.1136/bmjsrh-2019-200569.
2. Hatcher RA, Haddad L, Zieman M, et al. *Managing Contraception 2019-2020*. 15th ed. Bridging the Gap Foundation; 2019.

Study Reveals Low Rate of Contraceptive Use in Women with Recent Preterm Births

Medicaid claims data among a North Carolina cohort show that women were less likely to fill a contraceptive claim within 90 days after preterm birth.[1]

"We linked data from a pregnancy medical home program, where women with Medicaid in North Carolina are eligible for that program," says **Christine Tucker**, PhD, MPH, assistant professor in the department of maternal and child health at Gillings School of Global Public Health, University of North Carolina at Chapel Hill. "We found that less than half the women in our sample had a contraceptive claim within 90 days of delivery. It was lower for women with a preterm birth — and especially for women who had a preterm birth and more than two children."

Researchers collected data on contraception billed by Medicaid. They could not determine whether people used condoms or other barrier methods. Researchers studied health parity, including whether women had more than two children and a preterm birth. When comparing women by demographics, researchers found that women who were older, married, and college graduates had a lower prevalence of contraceptive use, Tucker says.

"They were all lower-income," she adds. "If they were married, they were less likely than unmarried women to obtain contraception."

One theory for this difference is that women in those groups might desire a pregnancy sooner than younger women. "Those are just questions — not the main point of our study," Tucker says.

Researchers were interested in

learning more about women who had a preterm birth. "Literature out there suggests that women who have a previous preterm birth are at higher risk for another preterm birth or a poorer birth outcome," Tucker says. "Longer pregnancy intervals and avoiding unintended pregnancy can help prevent preterm birth."

Investigators theorized it would be harder for women to access contraception after a preterm birth because they would be caring for a medically fragile infant, she adds.

"If your baby is in the NICU [neonatal intensive care unit], and you're there all the time, it may be harder for you to get an appointment for yourself to get contraception," Tucker explains. "There's qualitative data that women are so focused on medical complications and caring for their child that their needs go on the back burner."

Also, women who have a preterm birth have shorter pregnancies, which means there is less time for a conversation with their healthcare providers about contraception.

"I think our postpartum care models need to be more flexible and more patient-centered," Tucker says. "In this case, the women who qualified for Medicaid needed to get a message about contraception within 90 days, and that might not have been when they were ready for it," Tucker says. "Their reproductive life plan might not have been on their mind when they had a young infant."

This means healthcare providers need to be more flexible and find creative ways to serve the mother and infant, she adds. For example, some pediatricians conduct postpartum depression and anxiety screening of new mothers during well-child visits.

"I'm not sure how widespread this is, but I think there's a lot of movement around the fourth trimester," Tucker says. "We spend all this time with women when they're pregnant, and they have extensive prenatal care appointments, but the fourth trimester is when women are so vulnerable. Depression and anxiety are high."

Postpartum women experience bleeding, night sweats, lack of sleep, challenges with breastfeeding, and other issues. They only have one doctor's visit at six weeks, Tucker explains.

"There's a movement to think about the fourth trimester as a continuum, so the mother and baby are together at that time, and let's treat and serve them together," she adds.

The study found an association between preterm birth and less use of highly effective contraception. Women were much less likely to submit a claim for an intrauterine device after a preterm birth, Tucker says. Solutions include expanding Medicaid. Some women have Medicaid during their pregnancy, but do not have access to health insurance coverage after their pregnancy, Tucker says.

Another solution is the national Alliance for Innovation on Maternal Health (AIM) patient safety bundle related to postpartum care basics for maternal safety. *(Find more information at: https://bit.ly/35yIScc.)*

"Nationally, there is a lot of funding around maternal mortality and severe maternal morbidity. New safety bundles were implemented with small, evidence-based interventions," Tucker says. Two postpartum bundles help providers give a warm handoff from the maternity care provider to the primary care provider.

Another best practice is for obstetricians/gynecologists to start a conversation about contraception prenatally.

"Those conversations should be patient-centered," Tucker says. "It might not be the most important thing to the woman to prevent another preterm birth."

For instance, the woman might want another baby soon after giving birth. Conversations must take into account her needs and view the woman as the expert in her own needs, Tucker explains.

"The clinician can explain how she might be at higher risk of a second preterm birth if she just had one, and the clinician can explain the evidence on birth spacing," she adds. "But, ultimately, this needs to be a shared decision-making process. If we just say, 'Don't get pregnant in the next 18 months,' it doesn't open the door for the woman to have an open conversation with her provider." ■

REFERENCE

1. Tucker C, Berrien K, Menard MK, et al. Preterm birth and receipt of postpartum contraception among women with Medicaid in North Carolina. *Matern Child Health J* 2020;24:640-650.

COMING IN FUTURE MONTHS

- Positive results on hormonal male contraceptive
- Over-the-counter progestin-only pill provides equitable access
- Integrated child services and family planning can work
- Transgender patients need gender-affirming contraceptive counseling

CONTRACEPTIVE TECHNOLOGY UPDATE®

Contraceptive Technology Update is endorsed by the **National Association of Nurse Practitioners in Women's Health** and the **Association of Reproductive Health Professionals** as a vital information source for healthcare professionals.

CME/CE INSTRUCTIONS

To earn credit for this activity, please follow these instructions:

1. Read and study the activity, using the provided references for further research.

2. Log on to ReliasMedia.com and click on My Account to view your available CE activities. Tests are taken after each issue. First-time users must register on the site using the subscriber number on their mailing label, invoice, or renewal notice.

3. Pass the online test with a score of 100%; you will be allowed to answer the questions as many times as needed to achieve a score of 100%. Tests are taken with each issue.

4. After successfully completing the test, your browser will be automatically directed to the activity evaluation form, which you will submit online.

5. Once the completed evaluation is received, a credit letter will be emailed to you.

CME/CE QUESTIONS

1. **A recent paper on a no-test medication abortion model suggests several steps to provide medication abortions safely without in-person visits. Which is one of the paper's recommended steps?**

   a. Clinicians can forgo Rh typing because the risk of Rh sensitization after early abortion is negligible.
   b. Women can obtain ultrasounds and other preabortion procedures through drive-through stations.
   c. Clinicians can set an upper gestational age limit of 81 days.
   d. Providers can have patients follow up with a pregnancy test at their community family provider.

2. **Reproductive-age women using the acne medication isotretinoin are advised to use two different contraceptives to prevent pregnancy. A new pilot study revealed which method appears to be safe and effective?**

   a. Depo-Provera
   b. Condom
   c. Spermicide
   d. Etonogestrel contraceptive implant

3. **Researchers found the copper intrauterine device is an effective contraceptive because:**

   a. it prevents implantation of a fertilized egg.
   b. it impairs sperm viability and egg quality.
   c. it releases natural estrogen.
   d. it provides an internal barrier.

4. **In a survey about contraceptive access during deployment, United States servicewomen reported both easy access and barriers to access. What proportion of those surveyed said they found it easy to obtain their desired contraceptive method vs. those who encountered barriers?**

   a. 35% said it was easy to obtain contraceptives, while 65% experienced difficulty.
   b. 42% said it was difficult to obtain the contraceptives they wanted, and 58% encountered no issues.
   c. 51% said it was somewhat or very easy to get their contraceptives, and 49% said it was somewhat or very difficult.
   d. 22% said it was somewhat easy to get their contraceptives, while 28% said it was somewhat difficult to obtain contraceptives.