Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Special ambulatory gynecologic considerations in the era of coronavirus disease 2019 (COVID-19) and implications for future practice

Megan A. Cohen, MD, MPH; Anna M. Powell, MD, MS; Jenell S. Coleman, MD, MPH; Jean M. Keller, PAC; Alison Livingston, BSN, ACRN; Jean R. Anderson, MD

The coronavirus disease 2019 pandemic has altered medical practice in unprecedented ways. Although much of the emphasis in obstetrics and gynecology to date has been on the as yet uncertain effects of coronavirus disease 2019 in pregnancy and on changes to surgical management, the pandemic has broad implications for ambulatory gynecologic care. In this article, we review important ambulatory gynecologic topics such as safety and mental health, reproductive life planning, sexually transmitted infections, and routine screening for breast and cervical cancer. For each topic, we review how care may be modified during the pandemic, provide recommendations when possible on how to ensure continued access to comprehensive healthcare at this time, and discuss ways that future practice may change. Social distancing requirements may place patients at higher risk for intimate partner violence and mental health concerns, threaten continued access to contraception and abortion services, affect prepregnancy planning, interrupt routine screening for breast and cervical cancer, increase risk of sexually transmitted infection acquisition and decrease access to treatment, and exacerbate already underlying racial and minority disparities in care and health outcomes. We advocate for increased use of telemedicine services with increased screening for intimate partner violence and depression using validated questionnaires. Appointments for long-acting contraceptive insertions can be prioritized. Easier access to patient-controlled injectable contraception and pharmacist-provided hormonal contraception can be facilitated. Reproductive healthcare access can be ensured through reducing needs for ultrasonography and laboratory testing for certain eligible patients desiring abortion and conducting phone follow-up for medication abortions. Priority for in-person appointments should be given to patients with sexually transmitted infection symptoms, particularly if at risk for complications, while also offering expedited partner therapy. Although routine mammography screening and cervical cancer screening may be safely delayed, we discuss society guideline recommendations for higher-risk populations. There may be an increasing role for patient-collected human papillomavirus self-samples using new cervical cancer screening guidelines that can be expanded considering the pandemic situation. Although the pandemic has strained our healthcare system, it also affords ambulatory clinicians with opportunities to expand care to vulnerable populations in ways that were previously underutilized to improve health equity.

Key words: abortion, cervical cancer screening, contraception, coronavirus disease 2019, health equity, intimate partner violence, reproductive healthcare access, telemedicine

Introduction

The United States leads the world in total number of coronavirus disease 2019 (COVID-19) cases and deaths caused by COVID-19.[1] As the pandemic spreads, obstetrical and gynecologic (OBGYN) clinical care, as in other disciplines, has changed and evolved in unprecedented ways. In the short term, elective gynecologic surgeries and nonurgent clinic visits have been canceled; for obstetrical patients, prenatal care delivery and fetal-testing algorithms were modified. Telemedicine visits have replaced many in-person visits. Previous regulatory barriers, such as state licensing restrictions and billing constraints, have been loosened or eliminated, whereas measures to ensure telemedicine compliance with patient-privacy laws have been strengthened.

As states and ultimately the entire country begin to cautiously reopen for business, the effect of the COVID-19 pandemic on how we provide sexual and reproductive healthcare will change. In particular, telemedicine can offer the opportunity to provide greater access to high-quality care in addition to reducing patient barriers to health service utilization such as transportation difficulties, time off from work, and access for those in remote locations. Telemedicine, including telephone visits, may be ideal for counseling but can also allow comprehensive history taking, initial triage of certain problems, and

From the Department of Gynecology and Obstetrics, Johns Hopkins University School of Medicine, Baltimore, MD (Drs Cohen, Powell, and Coleman, Ms Keller and Livingston, and Dr Anderson); and Johns Hopkins HIV Women's Health Program, Department of Gynecology and Obstetrics, Johns Hopkins University School of Medicine, Baltimore, MD (Drs Cohen, Powell, and Coleman, Ms Keller and Ms Livingston, and Dr Anderson).

Received May 8, 2020; revised May 27, 2020; accepted June 3, 2020.

The authors report no conflict of interest. No financial support was received for this work.

This communication has been published in the middle of the COVID-19 pandemic and is available via expedited publication to assist patients and healthcare providers.

Corresponding author: Megan A. Cohen, MD, MPH. mcohen82@jhu.edu

0002-9378/$36.00 • https://doi.org/10.1016/j.ajog.2020.06.006

discussion of patient-uploaded pictures to patient portals and can facilitate laboratory and radiology workup to streamline the clinical evaluation.

To date, in OBGYN most of the attention in the literature has been placed on pregnancy and COVID-19 and on potential risks associated with surgery. Ambulatory gynecologic considerations have largely focused on stratifying risk by patient complaints or known disease processes to determine who could be seen in person urgently, who can be assessed through telemedicine for less urgent problems, and who may be safely delayed until the current crisis has passed. We would like to highlight ambulatory gynecologic situations that have received too little attention to date but are of critical importance in assessing and maintaining health in women.

It is also important to note that the COVID-19 pandemic has a considerable chance of exacerbating racial and ethnic disparities which are pervasive in OBGYN, with minorities already at a higher risk of worse health outcomes and decreased access to healthcare and services, as will be further discussed below.[2] COVID-19 itself may disproportionately affect minority communities for a variety of reasons,[3,4] and there have been well-documented crises within vulnerable populations including on Native American reservations, in incarcerated populations, in African American communities, and in immigrant and refugee populations. In addition, these populations may face barriers in accessing telemedicine.[5] Thus, we will need to advocate for continued payment parity for video visits, but also for sufficient reimbursement for telephone visits after the pandemic abates. Although a full discussion of health disparities highlighted by this crisis is outside the scope of this article, we will address ways to modify care now and in future, which may mitigate some of these disparities and improve overall health equity (Box).

Safety and Mental Health

Intimate partner violence

Nearly 40% of women in the United States are victims of sexual violence in their lifetimes and 20% are victims of physical intimate partner violence (IPV).[6] Vulnerable populations such as young adults, people who identify as sexual and gender minorities, people with disabilities, and people of certain minority groups such as Native Americans and nonhispanic black women are at high risk for experiencing IPV.[2] Recent reports indicate that social distancing measures may increase risk of IPV, by limiting the ability of victims of violence to distance themselves from abusers or to access external support.[7] A history of or ongoing IPV has a substantial effect on a woman's physical and mental health,[8] including increased risk for unintended pregnancy, poor obstetrical outcomes, sexually transmitted infections (STIs) such as HIV, and risk of death from homicide or suicide.[6,9]

Though important to assess at any time, during this time of increased psychological stress and enforced social isolation, it is particularly critical that safety is assessed at each clinical encounter, in person or virtual. There are a number of simple validated screens[10] that can be administered in either setting. However, it is important to be aware that with telemedicine, patients may be unable to speak privately; a script to standardize language and alert patients that these questions are asked at all visits may be helpful. Providers should be alert to nonverbal cues and provide contact information if further communication is desired.[11] Use of private, patient-filled questionnaires through the electronic health record (EHR) patient portal could be implemented with subsequent notification of providers if a patient screens positive. If a patient can speak freely, we advocate for use of an evidence-based tool such as Confidentiality, Universal Education and Empowerment, Support (CUES).[12] CUES is a trauma-informed intervention available to providers to facilitate discussions regarding unhealthy relationships and potential consequences of relationship-based violence for various patient populations including American Indian and Alaskan Native people; adolescents; lesbian, bisexual, gay, transgender, and gender nonconforming individuals; and people living with HIV (PLHIV). A plan for referral to further local resources should also be in place.

Depression and anxiety

Women are about twice as likely as are men to experience depression during their lifetime[13] and this risk may be pronounced at specific reproductive periods, such as adolescence, pregnancy, postpartum, and during the menopausal transition.[14] The psychological effects of isolation or quarantine and fear of contagion for oneself or dealing with illness and death in friends or family members may predispose to or exacerbate underlying mental health problems, especially among patients with a history of trauma. A recent review of the literature in the COVID-19 pandemic found that symptoms of anxiety and depression were present in 16% to 28% of individuals.[15]

Universal screening for depression and anxiety in all adult patients in the primary care setting, including pregnant and postpartum women, has been recommended by the US Preventive Services Task Force (USPSTF)[16] and the American College of Obstetricians and Gynecologists (ACOG),[17] whereas the Joint Commission recommends screening for suicidal ideation in patients in all medical settings.[18] Several brief validated screening instruments for depression and anxiety such as the Patient Health Questionnaire 2, the Ask Suicide-Screening Questions,[19] Edinburgh Postnatal Depression Scale,[20] and the Edinburgh Postnatal Depression Scale Anxiety subscale[21] can be effectively administered through telemedicine or patient portals with a plan for referral for women who screen positive. Obstetrician-gynecologists can consider initiating pharmacotherapy for appropriate patients to expedite treatment, but should refer certain patients to a psychiatrist, such as those with concern for bipolar disorder, considerable anxiety, suicidal ideation, and concomitant substance abuse or eating disorder.[21] Patients who express active suicidal or homicidal ideation, those with psychotic symptoms, and those with disorganized behavior or thoughts need to be referred

BOX

Recommended modifications to ambulatory gynecologic care in the coronavirus disease 2019 era

Safety and mental health

1. Screen all patients for intimate partner violence and depression or anxiety using validated screening questionnaires and trauma-informed practices and refer for services as necessary.
2. Utilize questionnaires completed on the patient portal before the visit to allow discreet disclosure for patients who cannot have private discussions over telemedicine.

Prevention of unintended pregnancy

1. Counsel patients on extended use of the following LARC devices: up to 12 y for copper IUD, 7 y for the 52 mg levonorgestrel IUD, and 5 y for the etonogestrel implant.
2. Increase access to patient-administered contraception such as subcutaneous depot medroxyprogesterone acetate.
3. Reduce barriers to accessing hormonal contraception by providing adequate refills, providing eligible new patients prescriptions through telemedicine, and encouraging use of pharmacist-prescribed contraception where available.

Access to abortion services

1. Ensure continued access to surgical termination as an essential healthcare service.
2. Perform initial evaluation, counseling, and consenting through telemedicine.
3. Limit unnecessary testing before abortion such as ultrasound verification of gestational age for patients with regular menses, certain LMP, and no risk factors for ectopic pregnancy.
4. Utilize phone follow-up protocols for medication abortion patients.

Prepregnancy and interconception care

1. Perform preconception counseling through telemedicine.
2. Counsel patients in a patient-centered manner regarding risks and benefits of seeking conception during the COVID-19 pandemic.

Sexual health

1. Prioritize patients with STI symptoms, particularly if increased risk for complications, for in-person appointments.
2. Increase access to patient self-swabs such as home self-swabs for STI screening and syndromic management through telemedicine for those who are unable to seek in-person care.
3. Ensure appropriate utilization of expedited partner therapy and preexposure prophylaxis for appropriate patients.

Breast cancer screening

1. Routine mammography may be safely delayed until risks from pandemic conditions abate.
2. Utilize telemedicine to triage new breast complaints, determine need for in-person visit, counsel patients on appropriate follow-up guidelines, and alleviate patient anxieties.

Cervical cancer screening

1. Follow the American Society for Colposcopy and Cervical Pathology guidelines for modifications to cervical cancer screening and follow-up of abnormal pap smears.
2. Consider increasing use of patient-collected HPV self-swabs and following new HPV testing—only cervical cancer screening guidelines.

COVID-19, coronavirus disease 2019; *HPV*, human papillomavirus; *IUD*, intrauterine device; *LARC*, long-acting reversible contraception; *LMP*, last menstrual period; *STI*, sexually transmitted infection.

Cohen. Special ambulatory gynecologic considerations in the coronavirus disease 2019 era. Am J Obstet Gynecol 2020.

to the emergency department.[21] For women on psychotropic medications, providers should ensure an adequate supply.

Reproductive Life Planning

Prevention of unintended pregnancy

The most recent data in the United States estimates that 45% of pregnancies were unintended in 2011; although this represents a decrease of 6% from 2008, the rate of unintended pregnancies in the United States remains higher than in other industrialized countries. Furthermore, certain subgroups, such as women who are poor, PLHIV, and adolescents, have higher rates of unintended pregnancy.[22] Although there are no data as yet to suggest that unintended pregnancies will increase during the COVID-19 crisis and previous studies of pandemic situations have found that fertility may actually decrease,[23,24] patients may face challenges in accessing contraceptive care, transport to pharmacies, and supply chain issues and may also experience decreased ability to negotiate condom or contraceptive use.[25] Furthermore, contraceptive counseling and ongoing attention to contraceptive needs may be neglected as other issues are prioritized.

The International Federation of Gynecology and Obstetrics (FIGO) released a statement[26] emphasizing that contraceptive and family planning services and supplies are core components of essential health services and access to these services is a fundamental human right, including during this pandemic. This

commitment is echoed by other key global organizations.[27,28] In action items, FIGO highlights the role of telemedicine in improving information and access to contraception and calls for expansion of postpartum family planning services, particularly long-acting reversible contraception (LARC), including intrauterine devices (IUDs), implants, and injectables.

Although clinics may seek to limit in-person care even for ancillary visits for depot medroxyprogesterone acetate (DMPA) administration, caution should be given to simply switching contraceptive methods without careful consideration and counseling, with attention to individual patient needs related to safety, convenience, tolerability, and adherence. Certain subpopulations are likely to have greater prevalence of comorbid conditions resulting in contraindications to estrogen-containing contraceptives and concerns about drug-drug interactions. DMPA may also be considered for subcutaneous self-injection, which has been reported to be safe and acceptable to patients with even higher continuation rates than provider-administered injections.[29,30] Patients who wish to initiate or discontinue LARCs should still be able to come to clinic to do so, but providers may wish to triage common complaints and counsel regarding potential extended use of LARC devices. Clinical trial data supports extended use of LARC devices beyond approved durations; the copper T380A remains effective for 12 years,[31] the 52 mg levonorgestrel IUD remains effective for 7 years,[31,32] and the etonogestrel implant can be used for 5 years.[32] Providers could offer telemedicine visits to counsel patients on reproductive life planning using shared decision-making, including discussing extended use of LARC devices, instructing patients on how to self-administer DMPA if desired, and considering advanced provision of emergency contraception.

Restrictions on clinic visits during pandemic conditions also afford an opportunity to reduce barriers to obtaining and continuing hormonal contraception. For established patients, providers should ensure that adequate refills for prescription contraceptives are provided, ideally for 1 year. For new patients without contraindications to estrogen-containing methods, inability to perform an exam should not preclude prescribing combined hormonal contraception, particularly if a recent normal blood pressure reading is on file or can be reported by the patient.[33] Where available, patients may avail themselves of pharmacist-prescribed hormonal contraception.[34] ACOG endorses a goal of ultimately achieving over-the-counter hormonal contraception.[33]

Access to abortion services

Although several states are attempting to use the COVID-19 pandemic to limit access to abortion,[35] ACOG and other societies have called for continued access to abortion as essential reproductive healthcare services.[36] This should include ensuring continued access to surgical termination of pregnancy despite restrictions on surgical procedures, because abortion remains a time-sensitive procedure with substantial risk of harm to a patient if delayed.[37] Potential measures can be implemented to minimize contact with the healthcare system and facilitate timely access to abortion services. ACOG endorses remote assessment of gestational age without need for ultrasound verification for patients with a positive home urine pregnancy test result, regular menses, a sure last menstrual period, and no risk factors for ectopic pregnancy.[38] Initial counseling and consents can be obtained through telemedicine and then signed on the day of service. These measures could markedly improve access to services for patients in states with restrictive laws, who have to travel for abortion services, or who face other barriers to accessing care.

Medication abortion protocols can also be updated to align with current pandemic restrictions. Telemedicine-instructed administration of mifepristone where available has indicated similar outcomes compared with in-person clinician consultation.[39] Phone follow-up after medical abortion combined with home pregnancy tests have also been reported to be safe, feasible, and associated with similar loss to follow-up rates compared with in-person visits.[40–42] Clinicians may implement or adapt aspects of a recently published No-Test Medication Abortion protocol that allows for expansion of medication abortion up to 77 days' gestation[43] given recent literature reporting safety and efficacy through that time period with repeated dosing of misoprostol.[44,45] In the future, pending changes to regulatory approval and legislation and the entirety of medication abortions may be conducted through telemedicine where appropriate given the safety, efficacy, and patient satisfaction of direct-to-patient provision of mifepristone and misoprostol for at-home use.[46]

Prepregnancy and interconception care

Prepregnancy and interconception care and counseling are key strategies to identify, manage, and treat risk factors present before pregnancy that can harm fetal development and maternal health or increase risk of adverse pregnancy outcomes.[47] Although severe acute respiratory syndrome coronavirus 2 is likely to be with us for an indefinite period of time and development of a safe and effective vaccine may take up to 1 to 2 years, life continues and many women may wish to proceed with having a child. Pregnancy planning, desires, and timing should be addressed with all women of childbearing potential during the COVID-19 crisis, including the unknown effect of pregnancy on the susceptibility or severity of COVID-19 and uncertain maternal and fetal risks of COVID-19. Preconception discussions should be patient-centered and involve a shared decision-making process, including the option of deferring conception until the peak of the pandemic is passed or more is known about the effect of this virus on pregnancy or moving forward with conception. Telemedicine can help facilitate prepregnancy counseling discussions to

ensure chronic health conditions are optimized if a patient intends to pursue conception.

Sexual Health

Screening, prevention, and treatment of sexually transmitted infection

Since 2014, there has been a 19% increase in cases of chlamydia, 63% increase in gonorrhea, 71% increase in primary and secondary syphilis, and 185% increase in congenital syphilis.[48] Undiagnosed and untreated STIs can lead to pelvic inflammatory disease (PID), ectopic pregnancy, chronic pelvic pain, and adverse fetal and neonatal outcomes. Heterosexual transmission of HIV accounted for 85% of new infections in the United States in 2018.[49] Other psychosocial factors, such as the use of alcohol or drugs inhibiting the ability to negotiate safer sexual practices, diminished gender power, poverty, and partner violence, contribute to STI risk.[50,51] This may heighten patients' risk for acquiring STIs under pandemic conditions as discussed above. Priority for in-person visits should be given to women with symptoms suggestive of an STI, especially if accompanied by pain raising concern for PID.[52] However, during the COVID-19 crisis, the Centers for Disease Control and Prevention "encourages development of innovative testing protocols for self-collected clinical laboratory specimens."[52] Syndromic management may be considered in selected cases associated with genital ulcers or vaginal discharge without symptoms concerning for PID.[52] Ideally, expanded regulatory approval for self-swabs can continue after the pandemic to increase STI treatment for patients who are not able to access care or who may be reluctant to undergo pelvic exams.

Patients with confirmed STIs should be offered expedited partner therapy (EPT) when feasible, which remains underutilized given implementation barriers.[53,54] Providers may advocate for integration of EPT order sets into the EHR and education of local pharmacists to facilitate increased EPT access.[55] Safer sexual practices, including the use of condoms, should be discussed with patients who are at increased risk for STIs. The use of HIV preexposure prophylaxis (PrEP) should be discussed with HIV-uninfected patients who are at increased risk of HIV acquisition.[56] Telemedicine protocols[57] and pharmacist-led PrEP programs[58] have been reported to be safe and effective among men who have sex with men and should be considered for expansion to the gynecologic at-risk population to increase PrEP access.

Cancer Screening

Breast cancer

Patients at average risk of breast cancer can likely postpone routine breast mammography until risks from the pandemic conditions are lowered, as suggested by expert guidance.[59] Per these recommendations, women with previous breast imaging-reporting and data system (BI-RADS) 3 mammograms who are due for follow-up may also be postponed.[59] Outside of emergent scenarios, priority for breast imaging should be given to women with BI-RADS 4 or 5 lesions requiring diagnostic imaging or breast biopsy. Screening in high-risk women, including women known to be breast cancer gene carriers under the age of 40 years, may be delayed, but this may be reconsidered if delays are expected for greater than 6 months.[59] Telemedicine may be used to evaluate new breast complaints, to determine the need for in-person visit or referral for expedited imaging if warranted, and to counsel patients on appropriate follow-up guidelines and alleviate potential anxiety associated with delaying normal follow-up timelines.

Cervical cancer

The American Society for Colposcopy and Cervical Pathology (ASCCP) has endorsed guidance for management of cervical cancer screening tests in light of the COVID-19 pandemic and widespread suspension of elective procedures. These include postponing colposcopy for patients with low-grade squamous intraepithelial lesions (SIL) for up to 6 to 12 months, potential postponement of diagnostic or excisional procedures for patients with suspected or known high-grade SIL for up to 3 months, and attempted evaluation of those with suspected invasive disease within 4 weeks of initial pathology results.[60] Providers should adapt to local situations and use clinical judgment if they feel a patient is at higher risk and needs to be examined sooner.

In addition, ASCCP recently released new risk-based guidelines to guide cervical cancer screening, emphasizing human papillomavirus (HPV) testing for individuals over the age of 30 years and the role of primary HPV testing with or without reflex cytology.[61] The USPSTF also endorses primary HPV testing—only strategies.[62] The pandemic may thus provide an opportunity to expand use of patient-collected HPV self-swabs which have been reported to be acceptable to patients and noninferior to physician collection,[63–65] potentially leading to increased screening of underrepresented populations such as transgender or gender nonconforming patients.[66–68] For immunocompromised patients requiring more urgent follow-up but who are at high risk if they acquire COVID-19, providers can consider integrating self-collection kits that are able to be returned by mail into current practice.

Conclusion

We have discussed important considerations for ambulatory gynecologic care amidst the COVID-19 pandemic. We call for increased screening for IPV and depression utilizing the patient portal; provide ways to ensure continued and expanded access to contraception and abortion services; review recommendations for prepregnancy and interconception care; draw attention to the importance of screening, prevention, and treatment of STIs; and continued indicated screening for breast and cervical cancer.

The pandemic also affords us an opportunity to break down barriers and improve access to care for all populations by expanding use of telemedicine including telephone visits to address the digital divide; developing abortion protocols for eligible patients that reduce or remove costly tests; encouraging

movement toward patient-controlled, pharmacist-provided, or over-the-counter access to contraceptives; advocating for decreased barriers to implementing EPT; and facilitating use of self-sample swabs for STI and HPV testing. Thus, clinicians should "leverage intersectional, human rights—centered frameworks,"[25] ensure continued access to comprehensive ambulatory gynecologic care, and strive to achieve health equity for our patients now and in the future. ■

REFERENCES

1. Johns Hopkins Coronavirus Resource Center. COVID-19 map. Available at: https://coronavirus.jhu.edu/map.html. Accessed April 30, 2020.

2. ACOG Committee Opinion No. 649: racial and ethnic disparities in obstetrics and gynecology. Obstet Gynecol 2015;126:e130–4.

3. Laurencin CT, McClinton A. The COVID-19 pandemic: a call to action to identify and address racial and ethnic disparities. J Racial Ethn Health Disparities 2020;7:398–402.

4. Raifman MA, Raifman JR. Disparities in the population at risk of severe illness from COVID-19 by race/ethnicity and income. Am J Prev Med 2020 [Epub ahead of print].

5. Nouri S, Khoong EC, Lyles CR, Karliner L. Addressing equity in telemedicine for chronic disease management during the Covid-19 pandemic. NEJM Catalyst. Available at: https://catalyst.nejm.org/doi/abs/10.1056/CAT.20.0123. Accessed May 24, 2020.

6. Miller E, McCaw B. Intimate partner violence. N Engl J Med 2019;380:850–7.

7. Campbell AM. An increasing risk of family violence during the Covid-19 pandemic: strengthening community collaborations to save lives. 2020;2:100089.

8. Chisholm CA, Bullock L, Ferguson JEJ. Intimate partner violence and pregnancy: epidemiology and impact. Am J Obstet Gynecol 2017;217:141–4.

9. ACOG Committee Opinion No. 518: intimate partner violence. Obstet Gynecol 2012;119:412–7.

10. Basile KC, Hertz MF, Black SE. Intimate Partner Violence and Sexual Violence Victimization Assessment Instruments for Use in Healthcare Settings: (410572008–001). 2007. Available at: https://stacks.cdc.gov/view/cdc/44660/cdc_44660_DS1.pdf 2007. Accessed May 1, 2020.

11. GBV Guidelines. COVID-19: resources to address gender-based violence risks. Available at: https://gbvguidelines.org/cctopic/covid-19/. Accessed May 1, 2020.

12. IPV Health. Educate health providers on how to respond to intimate partner violence. Available at: https://ipvhealth.org/health-professionals/educate-providers/. Accessed May 1, 2020.

13. Kuehner C. Why is depression more common among women than among men? Lancet Psychiatry 2017;4:146–58.

14. Bhat A, Reed SD, Unützer J. The obstetrician-gynecologist's role in detecting, preventing, and treating depression. Obstet Gynecol 2017;129:157–63.

15. Rajkumar RP. COVID-19 and mental health: a review of the existing literature. Asian J Psychiatry 2020;52:102066.

16. Siu AL, ; US Preventive Services Task Force (USPSTF), Bibbins-Domingo K, Bibbins-Domingo K, et al. Screening for depression in adults: US Preventive Services Task Force Recommendation Statement. JAMA 2016;315:380–7.

17. ACOG committee opinion No. 757 summary: screening for perinatal depression. Obstet Gynecol 2018;132:1314–6.

18. A follow-up report on preventing suicide: focus on medical/surgical units and the emergency department. Sentinel Event Alert 2010;46:1–4.

19. Park LT, Zarate CA. Depression in the primary care setting. N Engl J Med 2019;380:559–68.

20. O'Connor E, Rossom RC, Henninger M, Groom HC, Burda BU. Primary care screening for and treatment of depression in pregnant and postpartum women: evidence report and systematic review for the US Preventive Services Task Force. JAMA 2016;315:388–406.

21. Osborne LM, Payne JL. Mood and Anxiety Disorders. Clinical Updates in Women's Health Care. 2017. Available at: https://www.acog.org/Clinical/Journals and Publications/Clinical Updates/2017/09/Mood and Anxiety Disorders. Accessed May 24, 2020.

22. Finer LB, Zolna MR. Declines in unintended pregnancy in the United States, 2008—2011. N Engl J Med 2016;374:843–52.

23. Chandra S, Christensen J, Mamelund SE, Paneth N. Short-term birth sequelae of the 1918—1920 influenza pandemic in the United States: state-level analysis. Am J Epidemiol 2018;187:2585–95.

24. Bloom-Feshbach K, Simonsen L, Viboud C, et al. Natality decline and miscarriages associated with the 1918 influenza pandemic: the Scandinavian and United States experiences. J Infect Dis 2011;204:1157–64.

25. Hall KS, Samari G, Garbers S, et al. Centring sexual and reproductive health and justice in the global COVID-19 response. Lancet 2020;395:1175–7.

26. COVID-19 contraception and family planning | FIGO. Available at: https://www.figo.org/covid-19-contraception-and-family-planning. Accessed May 1, 2020.

27. International Planned Parenthood Federation. IMAP statement on COVID-19 and sexual and reproductive health and rights. 2020. Available at: https://www.ippf.org/resource/imap-statement-covid-19-and-sexual-and-reproductive-health-and-rights. Accessed April 29, 2020.

28. United Nations Population Fund. Sexual and reproductive health and rights: modern contraceptives and other medical supply needs, including for COVID-19 prevention, protection and response. 2020. Available at: unfpa.org/resources/sexual-and-reproductive-health-and-rights-modern-contraceptives-and-other-medical-supply. Accessed April 29, 2020.

29. Brady M, Drake JK, Namagembe A, Cover J. Self-care provision of contraception: evidence and insights from contraceptive injectable self-administration. Best Pract Res Clin Obstet Gynaecol 2020 [Epub ahead of print].

30. Kennedy CE, Yeh PT, Gaffield ML, Brady M, Narasimhan M. Self-administration of injectable contraception: a systematic review and meta-analysis. BMJ Glob Health 2019;4:e001350.

31. Ti AJ, Roe AH, Whitehouse KC, Smith RA, Gaffield ME, Curtis KM. Effectiveness and safety of extending intrauterine device duration: a systematic review. Am J Obstet Gynecol 2020 [Epub ahead of print].

32. McNicholas C, Swor E, Wan L, Peipert JF. Prolonged use of the etonogestrel implant and levonorgestrel intrauterine device: 2 years beyond Food and Drug Administration-approved duration. Am J Obstet Gynecol 2017;216:586.e1–6.

33. Over-the-counter access to hormonal contraception: ACOG committee opinion summary, Number 788. Obstet Gynecol 2019;134:886–7.

34. Kooner M, Joseph H, Griffin B, et al. Hormonal contraception prescribing by pharmacists: 2019 update. J Am Pharm Assoc 2003:2020 [Epub ahead of print].

35. Sobel L, Ramaswamy A, Frederiksen B, Salganicoff A. State action to limit abortion access during the COVID-19 pandemic. The Kaiser Family Foundation. 2020. Available at: https://www.kff.org/womens-health-policy/issue-brief/state-action-to-limit-abortion-access-during-the-covid-19-pandemic/. Accessed May 1, 2020.

36. The American College of Obstetricians and Gynecologists. Joint statement on abortion access during the COVID-19 outbreak. 2020. Available at: https://www.acog.org/news/news-releases/2020/03/joint-statement-on-abortion-access-during-the-covid-19-outbreak. Accessed May 1, 2020.

37. Bayefsky MJ, Bartz D, Watson KL. Abortion during the Covid-19 pandemic—ensuring access to an essential health service. N Engl J Med 2020;382:e47.

38. The American College of Obstetricians and Gynecologists. COVID-19 FAQs for obstetrician—gynecologists, gynecology. Available at: https://www.acog.org/Clinical Information/Physician FAQs/COVID19. Accessed May 1, 2020.

39. Kohn JE, Snow JL, Simons HR, Seymour JW, Thompson TA, Grossman D.

Medication abortion provided Through telemedicine in four U.S. States. Obstet Gynecol 2019;134:343–50.
40. Raymond EG, Tan YL, Grant M, et al. Self-assessment of medical abortion outcome using symptoms and home pregnancy testing. Contraception 2018;97:324–8.
41. Perriera LK, Reeves MF, Chen BA, Hohmann HL, Hayes J, Creinin MD. Feasibility of telephone follow-up after medical abortion. Contraception 2010;81:143–9.
42. Chen MJ, Rounds KM, Creinin MD, Cansino C, Hou MY. Comparing office and telephone follow-up after medical abortion. Contraception 2016;94:122–6.
43. 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;101:361–6.
44. Kapp N, Eckersberger E, Lavelanet A, Rodriguez MI. Medical abortion in the late first trimester: a systematic review. Contraception 2019;99:77–86.
45. Dzuba IG, Chong E, Hannum C, et al. A non-inferiority study of outpatient mifepristone-misoprostol medical abortion at 64−70 days and 71−77 days of gestation. Contraception 2020;101:302–8.
46. Raymond E, Chong E, Winikoff B, et al. TelAbortion: evaluation of a direct to patient telemedicine abortion service in the United States. Contraception 2019;100:173–7.
47. ACOG Committee Opinion No. 762: prepregnancy counseling. Obstet Gynecol 2019;133:e78–89.
48. Centers for Disease Control and Prevention. Sexually transmitted disease surveillance. 2020. Available at: https://www.cdc.gov/std/stats18/default.htm 2018. Accessed May 1, 2020.
49. Centers for Disease Control and Prevention. HIV and women. 2020. Available at: https://www.cdc.gov/hiv/group/gender/women/index.html. Accessed May 1, 2020.
50. Hess KL, Javanbakht M, Brown JM, Weiss RE, Hsu P, Gorbach PM. Intimate partner violence and sexually transmitted infections among young adult women. Sex Transm Dis 2012;39:366–71.
51. Sharpe TT, Voûte C, Rose MA, Cleveland J, Dean HD, Fenton K. Social determinants of HIV/AIDS and sexually transmitted diseases among black women: implications for health equity. J Womens Health 2012;21:249–54.
52. Centers for Disease Control and Prevention. STD care and prevention guidance during disruption of clinical services. 2020. Available at: https://www.cdc.gov/std/dstdp/DCL-STDTreatment-COVID19-04062020.pdf. Accessed May 1, 2020.
53. Jamison CD, Coleman JS, Mmeje O. Improving women's health and combatting sexually transmitted infections through expedited partner therapy. Obstet Gynecol 2019;133:416–22.
54. ACOG committee opinion No. 737 summary: expedited partner therapy. Obstet Gynecol 2018;131:1180–1.
55. Mmeje OO, Qin JZ, Wetmore MK, Kolenic GE, Diniz CP, Coleman JS. Breakdown in the expedited partner therapy treatment cascade: from reproductive healthcare provider to the pharmacist. Am J Obstet Gynecol 2020 [Epub ahead of print].
56. ACOG committee opinion no 595: Committee on Gynecologic Practice: preexposure prophylaxis for the prevention of human immunodeficiency virus. Obstet Gynecol 2014;123:1133–6.
57. Wong KYK, Stafylis C, Klausner JD. Telemedicine: a solution to disparities in human immunodeficiency virus prevention and pre-exposure prophylaxis uptake, and a framework to scalability and equity. Mhealth 2020;6:21.
58. Havens JP, Scarsi KK, Sayles H, Klepser DG, Swindells S, Bares SH. Acceptability and feasibility of a pharmacist-led HIV pre-exposure prophylaxis (PrEP) program in the Midwestern United States. Open Forum Infect Dis 2019;6:ofz365.
59. Dietz JR, Moran MS, Isakoff SJ, et al. Recommendations for prioritization, treatment, and triage of breast cancer patients during the COVID-19 pandemic. the COVID-19 pandemic breast cancer consortium. Breast Cancer Res Treat 2020;181:487–97.
60. ASCCP. COVID-19—ASCCP. Available at: https://www.asccp.org/covid-19. Accessed April 29, 2020.
61. Perkins RB, Guido RS, Castle PE, et al. 2019 ASCCP risk-based management consensus guidelines for abnormal cervical cancer screening tests and cancer precursors. J Low Genit Tract Dis 2020;24:102–31.
62. US Preventive Services Task Force, Curry SJ, Krist AH, et al. Screening for cervical cancer: US Preventive Services Task Force Recommendation Statement. JAMA 2018;320:674–86.
63. Arbyn M, Smith SB, Temin S, Sultana F, Castle P; Collaboration on Self-Sampling and HPV Testing. Detecting cervical precancer and reaching underscreened women by using HPV testing on self samples: updated meta-analyses. BMJ 2018;363:k4823.
64. Bishop E, Katz ML, Reiter PL. Acceptability of human papillomavirus self-sampling Among a national sample of women in the United States. BioRes Open Access 2019;8:65–73.
65. El-Zein M, Bouten S, Louvanto K, et al. Predictive value of HPV testing in self-collected and clinician-collected samples compared with cytology in detecting high-grade cervical lesions. Cancer Epidemiol Biomarkers Prev 2019;28:1134–40.
66. Reisner SL, Deutsch MB, Peitzmeier SM, et al. Test performance and acceptability of self- versus provider-collected swabs for high-risk HPV DNA testing in female-to-male trans masculine patients. PLoS One 2018;13:e0190172.
67. Goldstein Z, Martinson T, Ramachandran S, Lindner R, Safer JD. Improved rates of cervical cancer screening among transmasculine patients through self-collected swabs for high-risk human papillomavirus DNA testing. Transgend Health 2020;5:10–7.
68. McDowell M, Pardee DJ, Peitzmeier S, et al. Cervical cancer screening preferences among trans-masculine individuals: patient-collected human papillomavirus vaginal swabs versus provider-administered pap tests. LGBT Health 2017;4:252–9.