COVID-19 and HIV

(updated May 2021)

AETC AIDS Education & Training Center Program New England

COVID-19 and HIV

This educational packet is a curated compilation of resources on COVID-19 and HIV.

The contents of this packet are listed below:

- What to Know About HIV and COVID-19 (CDC)
- What People Living with HIV Need to Know About HIV and COVID-19 (UNAIDS)
- What You Can do if You Are at Higher Risk of Severe Illness from COVID-19 (CDC)
- Guidance for COVID-19 and People with HIV (Clinicalinfo.HIV.gov)
- COVID-19: Considerations for People with HIV (Infectious Diseases Society of America and HIV Medicine Association)

You may wish to customize this packet to meet the needs or interests of particular groups, such as event participants, providers, patients, clients, or the general public. So please feel free to distribute all or part of this document as either a printout or PDF.

Centers for Disease Control and Prevention

COVID-19

What to Know About HIV and COVID-19

Updated Feb. 1, 2021

People with HIV may have concerns and questions about their risk of serious illness from COVID-19.

This is an emerging, rapidly evolving situation, and CDC will provide updated information as it becomes available.

Are people with HIV at higher risk for COVID-19 than other people?

We are still learning about COVID-19 and how it affects people with HIV. Based on limited data, we believe people with HIV who are on effective HIV treatment have the same risk for COVID-19 as people who do not have HIV.

Older adults and **people of any age who have serious underlying medical conditions** might be at increased risk for severe illness. This includes people who have weakened immune systems. The risk for people with HIV getting very sick is greatest in:

- People with a low CD4 cell count and
- People not on effective HIV treatment (antiretroviral therapy or ART).

Are COVID-19 vaccines safe for people with HIV?

The U.S. vaccine safety system makes sure all vaccines are as safe as possible. COVID-19 vaccines have gone through the same safety tests and meet the same standards as other vaccines. People with HIV were included in clinical trials, though safety data specific to this group are not yet available.

People with HIV are part of the group of people with underlying medical conditions. If you have HIV, you may choose to get vaccinated if you have not had a severe or immediate allergic reaction to any of the vaccine ingredients. If you have a weakened immune system, you should also be aware of the potential for reduced immune responses to the vaccine. If you decide to get vaccinated, continue to take everyday preventive actions to protect yourself against COVID-19.

Learn more about what CDC and other federal partners are doing to make sure COVID-19 vaccines are safe and effective.

When can people with HIV get vaccinated for COVID-19?

Because the supply of COVID-19 vaccine in the United States is limited, CDC recommends giving the vaccine in phases. People aged 16 through 64 with underlying medical conditions, including people who are in an immunocompromised state from HIV, might be at increased risk for severe illness from the virus that causes COVID-19 and may be considered for vaccination in phase 1c. As vaccine availability increases, vaccination recommendations will expand to include more groups.

While CDC recommends who should be offered COVID-19 vaccine first, each state has its own plan for vaccine prioritization and distribution. Please contact your state health department for more information on its planning for COVID-19 vaccination.

Learn more about how CDC is making COVID-19 vaccination recommendations.

What can people with HIV do to protect themselves from COVID-19?

The best way to prevent getting sick is to avoid exposure to the virus.

People with HIV should take everyday preventive actions to help prevent the spread of COVID-19.

If you have HIV and are taking your HIV medicine, it is important to continue your treatment and follow the advice of your health care provider. This is the best way to keep your immune system healthy.

People with HIV should also continue to maintain a healthy lifestyle by:

- Eating right,
- Getting at least 8 hours of sleep per night, and
- Reducing stress as much as possible.

Staying healthy helps your immune system fight off infection should it occur.

What should I do if I think I might have COVID-19?

Call your health care provider if you develop symptoms that could be consistent with COVID-19.

Most people have mild illness and can recover at home. If you think you have COVID-19 and have symptoms of illness, you should get tested.

It's important to continue taking your HIV medicine as prescribed. This will help keep your immune system healthy.

If you experience severe symptoms, get emergency medical care immediately. Call ahead to the emergency department and tell the operator that you may have COVID-19.

Learn more about COVID-19 and what to do if you get sick.

What else can people with HIV who are at higher risk of getting very sick from COVID-19 do to protect themselves?

Nearly half of people in the United States with diagnosed HIV are aged 50 years and older. People with HIV also have higher rates of certain underlying health conditions. Older age and underlying health conditions can put people with HIV at increased risk for more severe illness if they get COVID-19. This is especially true for people with advanced HIV.

Steps that people with HIV can take to prepare in addition to what is recommended for everybody:

- Make sure you have at least a 30- to 90-day supply of your HIV medicine and any other medications or medical supplies you need for managing HIV. Ask your health care provider about receiving your medicine by mail.
- Talk to your health care provider and make sure all your vaccinations are up to date, including vaccinations against seasonal influenza (flu) and bacterial pneumonia. These vaccine-preventable diseases disproportionally affect people with HIV.
- Establish and maintain a plan for remote clinical care. Try to establish a telemedicine link through your HIV care provider's online portal. If telemedicine is not available to you, make sure you can communicate with your provider by phone or text. You can update your remote clinical care plan every year, or any time you have a change in your health or HIV treatment.
- If your HIV is undetectable (or virally suppressed), talk to your health care provider about delaying your routine medical and lab visits.
- If your health care provider changed your HIV treatment, ask if it's safe to delay the change until follow-up testing and monitoring are possible.
- Make sure you can maintain a social network remotely, such as online, by phone, or by video chat. This can help you stay socially connected and mentally healthy, which is especially important for people with HIV.
- People with HIV can sometimes be more likely than others to need extra help from friends, family, neighbors, community health workers, and others. If you become sick, make sure you stay in touch by phone or email with people who can help you.

Can HIV medicine (ART) be used to treat COVID-19?

Currently, treatment for COVID-19 is very limited. There is no evidence that any medicines used to treat HIV are effective against COVID-19. People with HIV should not switch their HIV medicine in an attempt to prevent or treat COVID-19.

Some clinical trials are looking at whether HIV medicines can treat COVID-19. Other trials are looking at the effectiveness of different drugs to treat COVID-19 in people with HIV. They are also looking to better understand how people with HIV manage COVID-19. You can learn more at ClinicalTrials.gov .

Are shortages of HIV medicine (ART) or pre-exposure prophylaxis (PrEP) expected?

Drug shortages or anticipated problems with HIV medicine have not been identified.

The U.S. Food and Drug Administration (FDA) is closely monitoring the drug supply chain, as the COVID-19 pandemic has the potential to disrupt the supply of medical and pharmaceutical products in the United States.

The National Alliance of State and Territorial AIDS Directors (NASTAD) has also remained in contact with the major manufacturers of HIV medicine, as many of these products rely on ingredients produced in other countries.

As of January 26, 2021, there were no reports of manufacturing concerns or supply shortages of ART or PrEP.

Learn more about the FDA's response to COVID-19 .

Should people with HIV travel at this time?

For the latest CDC travel recommendations, visit CDC's COVID-19 travel information page.

What can everyone do to minimize stigma about COVID-19?

Minimizing stigma and misinformation about COVID-19 is very important. People with HIV have experience in dealing with stigma and can be allies in preventing COVID-19 stigma. Learn how you can reduce stigma and help prevent the spread of rumors about COVID-19.

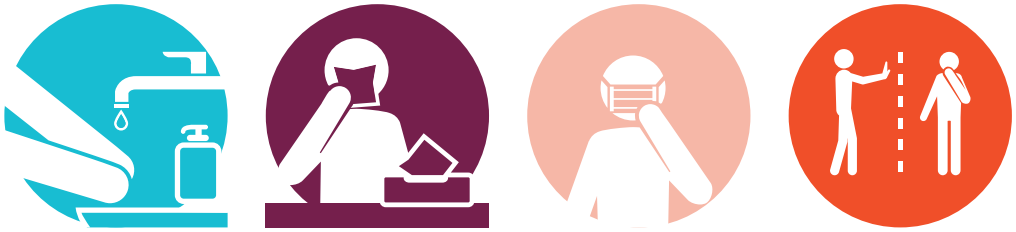
UNAIDS | 2020

What people living with HIV need to know about HIV and COVID-19

COVID-19 is a serious disease and all people living with HIV should take all recommended preventive measures to minimize exposure to, and prevent infection by, the virus that causes COVID-19.

As in the general population, older people living with HIV or people living with HIV with heart or lung problems may be at a higher risk of becoming infected with the virus and of suffering more serious symptoms.

We will actively learn more about how HIV and COVID-19 together impact on people living with HIV from countries and communities responding to both epidemics. Lessons in rolling out innovations or adapting service delivery to minimize the impact on people living with HIV will be shared and replicated as they become available. Until more is known, people living with HIV—especially those with advanced or poorly controlled HIV disease—should be cautious and pay attention to the prevention measures and recommendations. It is also important that people living with HIV have multimonth refills of their HIV medicines.



Precautions that people living with HIV and key populations should follow to prevent COVID-19 infection

Stay safe

- Clean hands frequently with soap and water (for 40–60 seconds) or an alcohol-based hand sanitizer (for 20–30 seconds).
- Cover your mouth and nose with a flexed elbow or tissue when coughing or sneezing. Throw the tissue away after use.
- Avoid close contact with anyone who has a fever or cough.
- Stay home when you are ill.
- If you are experiencing fever, a cough and difficulty breathing and have recently travelled to, or are a resident in, an area where COVID-19 is reported, you should seek medical care immediately from your community health service, doctor or local hospital. Before you go to a doctor's office or hospital, call ahead and tell them about your symptoms and recent travel.
- If you are ill, wear a medical mask and stay away from others.

Stay informed

- Know the facts about COVID-19 and always check a reliable source, such as the World Health Organization: **https://www.who.int/emergencies/diseases/novel-coronavirus-2019.**

Be prepared

- You should have a supply of your necessary medical supplies on hand—ideally for 30 days or more. The World Health Organization HIV treatment guidelines now recommend multimonth dispensing of three months or more of HIV medicines for most people at routine visits, although this has not been widely implemented in all countries.
- Know how to contact your clinic by telephone in the event that you need advice.
- Know how to access treatment and other supports within your community. This treatment could include antiretroviral therapy, tuberculosis medication (if on tuberculosis treatment) and any other medication for other illnesses that you may have.

- Key populations, including people who use drugs, sex workers, gay men and other men who have sex with men, transgender people and prisoners, should ensure that they have essential means to prevent HIV infection, such as sterile needles and syringes and/or opioid substitution therapy, condoms and pre-exposure prophylaxis (PrEP). Adequate supplies of other medications, such as contraception and gender-affirming hormone therapy, should also be obtained.
- Not all countries have implemented policies to allow for longer prescriptions. Be in touch with your health-care provider as early as possible. Consider working with others in your community to persuade health-care providers and decision-makers to provide multi-month prescriptions for your essential medicines.
- Discuss with your network of family and friends how to support each other in the event that social distancing measures are put in place. Make alternate arrangements within your community for food, medicines, care for children or pets, etc.

- Help others in your community and ensure that they also have an adequate supply of essential medicines.
- Check that you know how to reach your local network of people living with HIV by electronic means. Make a plan for telephone and for social media connections in the event that public health measures call for people to stay home or if you become ill.

Support yourself and people around you

- The outbreak of COVID-19 may cause fear and anxiety—everyone is encouraged to take care of themselves and to connect with loved ones. People living with HIV and their communities have decades of experience of resilience, surviving and thriving, and can draw on their rich shared history to support their families and communities in this current crisis. Pay particular attention to your mental health by:

- **Avoiding excessive exposure to media coverage of COVID-19. Only read information from trusted sources.**
- **Taking care of your body. Take deep breaths, stretch or meditate. Try to eat healthy, well-balanced meals, exercise regularly, get plenty of sleep and, where possible, avoid alcohol and drugs.**
- **Making time to unwind and reminding yourself that negative feelings will fade. Take breaks from watching, reading or listening to news stories—it can be upsetting to hear about the crisis repeatedly. Try to do some other activities you enjoy in order to return to your normal life.**

- Connecting with others. Share your concerns and how you are feeling with a friend or family member.

Stop stigma and know your rights

- Stigma and discrimination is a barrier to an effective response to COVID-19. This is a time where racism, stigma and discrimination can be directed against groups considered to be affected.

- Your workplace, access to health care or access to education, for you or your children, may be affected by the COVID-19 outbreak if social distancing measures are put in place in your community. Find out your rights and make sure that you and your community are prepared.

Treatment of Covid-19

- Treatment of COVID-19 is an active area of research and several randomized clinical trials are ongoing to determine whether antiretroviral medicines used for treating HIV might be useful for treating COVID-19. Many other possible treatments are also being tested in well-designed clinical trials. Since those trials have not ended, it is too early to say whether antiretroviral medicines or other medicines are effective in treating COVID-19.

UNAIDS

What You Can do if You are at Higher Risk of Severe Illness from COVID-19

Are You at Higher Risk for Severe Illness?

Based on what we know now, those at higher risk for severe illness from COVID-19 are:

- Older adults

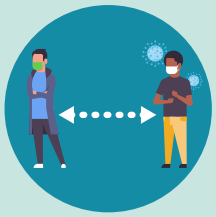
People of any age with the following:

- Cancer
- Chronic kidney disease
- COPD (chronic obstructive pulmonary disease)
- Heart conditions, such as heart failure, coronary artery disease, or cardiomyopathies
- Immunocompromised state (weakened immune system) from solid organ transplant
- Obesity (body mass index [BMI] of 30 kg/m2 or higher but < 40 kg/m2)
- Severe Obesity (BMI ≥ 40 kg/m2)
- Pregnancy
- Sickle cell disease
- Smoking
- Type 2 diabetes mellitus

Here's What You Can do to Help Protect Yourself

Limit contact with other people as much as possible.

Wash your hands often.



Avoid close contact (6 feet, which is about 2 arms lengths) with others outside your household.

Clean and disinfect frequently touched surfaces.

Avoid all unnecessary travel.

Call your healthcare professional if you are sick.

For more information on steps you can take to protect yourself, see CDC's How to Protect Yourself.

cdc.gov/coronavirus

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Guidance for COVID-19 and People with HIV

clinicalinfo.hiv.gov/en/guidelines/covid-19-and-persons-hiv-interim-guidance/interim-guidance-covid-19-and-persons-hiv

Updated

Feb. 26, 2021

This guidance reviews special considerations regarding COVID-19 for people with HIV and their health care providers in the United States. Information and data on COVID-19 are rapidly evolving. Clinicians should refer to updated sources for more specific recommendations regarding prevention, diagnosis, and treatment of COVID-19, including the NIH COVID-19 Treatment Guidelines, which has a section on Special Considerations in People with HIV.

Whether people with HIV are at greater risk of acquiring SARS-CoV-2 infection is currently unknown. Data on the clinical course of COVID-19 in people with HIV are emerging. In the initial case series from Europe and the United States, no significant differences in clinical outcomes were found between people with HIV who developed COVID-19 and individuals without HIV.[1-10] For example, data from the Veterans Aging Cohort Study compared outcomes in 253 mostly male participants with HIV and COVID-19 who were matched with 504 participants with only COVID-19.[10] In this comparison, no difference emerged in COVID 19 related hospitalization, intensive care unit (ICU) admission, intubation, or death between patients with or without HIV. In contrast, worse outcomes, including increased COVID 19 mortality rates, in people with HIV have been reported in other cohort studies from the United States, the United Kingdom, and South Africa.[11-16] In a multicenter cohort study of 286 patients with HIV and COVID-19 in the United States, lower CD4 count (i.e., <200 cells/mm^3), despite virologic suppression, was associated with a higher risk for the composite endpoint of ICU admission, mechanical ventilation, or death.[14] In another study of 175 patients with HIV and COVID-19, a low CD4 count or CD4 nadir was associated with poor outcomes.[15] In a cohort study in New York, people with HIV had higher rates of hospitalization and mortality with COVID-19 compared with people without HIV.[16]

In the general population, individuals who are at highest risk of severe COVID-19 include those older than 60; those who are pregnant; and those with comorbidities, such as obesity, diabetes mellitus, cardiovascular disease, pulmonary disease, smoking history, sickle cell disease—as well as solid organ transplant recipients.[17] Many people with HIV have one or more comorbidities that may put them at increased risk for a more severe course of COVID-19. Both COVID-19 and HIV disproportionately affect communities of color. Based on the available literature, close monitoring is warranted for all people with HIV and SARS-CoV-2 infection, especially those with advanced HIV or with comorbidities.

Guidance for all Persons with HIV

- People with HIV should follow all applicable recommendations of the U.S. Centers for Disease Control and Prevention (CDC) to prevent acquisition of SARS-CoV-2, such as practicing social or physical distancing, wearing masks consistently, avoiding crowded areas, and using proper hand hygiene **(AIII)**.
- People with HIV should receive SARS-CoV-2 vaccines, regardless of CD4 or viral load, because the potential benefits outweigh potential risks **(AIII)**.
    - Based on recent literature to date, people with HIV appear to be at increased risk for severe outcomes with COVID-19 compared with people without HIV and should be included in the category of high-risk medical conditions when developing vaccine priority **(AIII).**
    - People with HIV were included in clinical trials of the two mRNA vaccines; at this time, the safety and efficacy in this specific subgroup have not been fully reported.[18, 19] People with HIV who are well controlled on antiretroviral therapy (ART) typically respond well to licensed vaccines. Guidance for these vaccines, including for people with HIV, is available through the Advisory Committee on Immunization Practices (ACIP) and from the Infectious Diseases Society of America. Confidentiality about their underlying condition should be preserved when administering vaccines to people with HIV.
- Current recommendations of the ACIP, the American College of Obstetricians and Gynecologists (ACOG), and the Society of Maternal Fetal Medicine (SMFM) state that pregnant and lactating people who otherwise meet criteria for vaccination should not be restricted from vaccine access. The CDC also provides information about vaccine considerations for people who are pregnant or breastfeeding.
- Influenza and pneumococcal vaccinations should be kept up-to-date, with attention to timing because receipt of other vaccines is not recommended within 2 weeks of COVID-19 vaccination **(AIII)**.
- People with HIV who have COVID-19 should be clinically managed in the same way as people in the general population with COVID-19, including when making medical care triage determinations **(AIII)**.

Antiretroviral Therapy

- Health care providers should make every effort to ensure that people with HIV maintain an adequate supply of ART and all other concomitant medications **(AIII)**.
- People with HIV should talk to their pharmacists and/or health care providers about exploring options for alternative delivery, such as changing to mail-order delivery of medications, when possible.
- People with HIV for whom a regimen switch is planned for reasons other than toxicities or virologic failure should consider delaying the switch until close follow-up and monitoring are possible **(AIII)**.

- Many drugs, including some antiretroviral (ARV) agents (e.g., lopinavir/ritonavir, boosted darunavir, tenofovir disoproxil fumarate/emtricitabine), have been or are being evaluated in clinical trials or are being prescribed for off-label use to treat or prevent COVID-19. At this time, no ARV agents have been shown to be effective in these settings.[17–19] People with HIV should not switch their ARV regimens or add ARV drugs to their regimens for the purpose of preventing or treating SARS-CoV-2 infection **(AIII)**.

Clinic or Laboratory Monitoring Visits Related to HIV Care

- Together with their health care providers, people with HIV should weigh the risks and benefits of attending versus not attending in-person HIV-related clinic appointments at this time. Factors to consider include the extent of local COVID-19 transmission, the health needs that will be addressed during the appointment, their HIV status (e.g., CD4 cell count, HIV viral load), the interval since their last laboratory testing, the need for vaccinations, and their overall health.
- Telephone or virtual visits for routine or non-urgent care and adherence counseling may replace face-to-face encounters.
- For people who have a suppressed HIV viral load and are in stable health, routine medical and laboratory visits should be postponed to the extent possible.

People with HIV and in Opioid Treatment Programs

Clinicians caring for persons with HIV who are enrolled in opioid treatment programs (OTPs) should refer to the Substance Abuse and Mental Health Service Administration (SAMHSA) website for updated guidance on avoiding treatment interruptions during the COVID-19 pandemic. State methadone agencies are also responsible for regulating OTPs in their jurisdictions and may provide additional guidance.

Guidance for People with HIV in Self-Isolation or Quarantine Due to SARS-CoV-2 Exposure

Health care workers should—

- Verify that patients have adequate supplies of all medications and expedite additional drug refills as needed.
- Devise a plan to evaluate patients if they develop COVID-19 related symptoms, including for possible transfer to a health care facility for COVID-19 related care.

People with HIV should—

- Contact their health care providers to report that they are self-isolating or in quarantine.
- Inform their health care providers about the specific amount of ARV medications and other essential medications they have on hand and arrange for delivery of refills, if needed.

Guidance for People with HIV Who Have Fever and/or Respiratory or Other Symptoms and are Seeking Evaluation and Care

Guidance for Health Care Workers

Follow CDC recommendations, as well as state and local health department guidance on infection control, triage, diagnosis, and management.

Guidance for People with HIV

- Follow CDC recommendations regarding symptoms.
- Call their health care providers for medical advice if they develop a fever and symptoms (e.g., cough, dyspnea). New onset or worsening dyspnea warrants in-person evaluation.
- Call the clinic in advance before presenting to the care providers.
- Always use respiratory and hand hygiene and cough etiquette when presenting to the health care facility and wear a face mask.
- Alert registration staff immediately upon arrival of their symptoms, if they present to a clinic or an emergency facility without calling in advance, so that measures can be taken to prevent COVID-19 transmission in the health care setting. Specific clinic actions include placing a mask on the patient and rapidly putting the patient in a room (if available, negative-pressure) or other space separated from other people.

Guidance for Managing People with HIV Who Develop COVID-19

Guidance When Hospitalization Is Not Necessary

The person with HIV should do the following:

- Manage symptoms at home with supportive care for symptomatic relief.
- Maintain close communication with their health care provider and report if symptoms progress (e.g., sustained fever for >2 days, new shortness of breath). Patients and/or caregivers should be aware of warning signs and symptoms that warrant in-person evaluation, such as new dyspnea, chest pain/tightness, confusion, or other mental status changes.
- Continue their ARV therapy and other medications as prescribed.
- Be aware that people with HIV with additional comorbidities may be eligible for one of the anti-SARS-CoV-2 monoclonal antibodies available through Emergency Use Authorization from the FDA.[20-22]

Guidance When the Person with HIV Is Hospitalized

- ART should be continued. If the ARV drugs are not on the hospital's formulary, administer medications from the patient's home supplies.

- ARV drug substitutions **should be avoided**. If necessary, clinicians may refer to recommendations on ARV drugs that can be switched in the U.S. Department of Health and Human Services (HHS) guidelines for caring for persons with HIV in disaster areas.
- If patients receive ibalizumab (IBA) intravenous (IV) infusion every 2 weeks as part of their ARV regimen, clinicians should arrange with the patient's hospital provider to continue administration of this medication without interruption.
- If patients are taking an investigational ARV medication as part of their regimen, arrangements should be made with the investigational study team to continue the medication if possible.
- For critically ill patients who require tube feeding, some ARV medications are available in liquid formulations, and some—but not all—pills may be crushed. Clinicians should consult an HIV specialist and/or pharmacist to assess the best way for a patient with a feeding tube to continue an effective ARV regimen. Information may be available in the drug product label or from this document from the Toronto General Hospital Immunodeficiency Clinic.

Guidance Regarding Approved, Investigational, or Off-Label Treatment for COVID-19

- Remdesivir is currently the only FDA-approved antiviral treatment for COVID-19. Dexamethasone is commonly used in the management of patients with COVID-19 who require supplemental oxygen. People with HIV who are hospitalized with COVID-19 should generally receive these drugs for the same indications as people with COVID-19 who do not have HIV coinfection.
- Several other medications are available through Emergency Use Authorizations from the FDA, such as baricitinib, convalescent plasma, bamlanivamab, bamlanivimab plus etesvimab, and casirivimab plus imdevimab. Clinicians should refer to the latest COVID-19 Treatment Guidelines for methods of managing COVID-19 based on disease severity.
- For patients with HIV receiving COVID-19 treatment, clinicians must assess the potential for drug interactions between the COVID-19 treatment and the patient's ARV therapy and other medications. Information on potential drug interactions may be found in product labels, drug interaction resources, clinical trial protocols, or investigator brochures.
- When available and if indicated, clinicians may consider enrolling patients with HIV in a clinical trial evaluating the safety and efficacy of an experimental treatment for COVID-19. Persons with HIV should not be excluded from consideration for these trials. *Clinicaltrials.gov* is a useful resource for finding studies investigating potential treatments for COVID-19.

Additional Guidance for HIV Clinicians

- Some Medicaid and Medicare programs, commercial health insurers, and AIDS Drug Assistance Programs (ADAPs) have restrictions that prevent patients from obtaining a 90 day supply of ARV drugs and other medications. During the COVID-19 pandemic, clinicians should ask insurers/programs to waive drug-supply quantity restrictions. ADAPs also should provide patients with a 90-day supply of medications.
- People with HIV may need additional assistance with food, housing, transportation, and childcare during times of crisis and economic fragility. To enhance care engagement and continuity of ARV therapy, clinicians should make every attempt to assess their patients' need for additional social assistance and connect them with resources, including navigator services when possible.
- During this pandemic, social distancing and isolation may exacerbate mental health and substance use issues for some persons with HIV. Clinicians should assess and address these patient concerns and arrange for additional consultations, preferably virtually, as needed.
- Telehealth options, including telephone or video calls, should be considered for routine visits and to triage visits for patients who are ill.
- Reports indicate that some measures designed to control the spread of COVID-19 may increase the risk of intimate partner violence and/or child abuse, as well as limit the ability of people to distance themselves from abusers or to access external support. Providers should assess patient safety at each clinical encounter, either in-person or via telemedicine, being cognizant of the patient's ability to speak privately.
- During the COVID-19 pandemic, reproductive desires and pregnancy planning should be discussed with all people of childbearing potential. This discussion should include information on what is known and not known about COVID-19 during pregnancy. Pre-pregnancy discussions should be patient centered and should include the option to defer efforts to conceive until after the peak of the pandemic and/or more is known about the effect of COVID-19 during pregnancy. Individuals may be at increased risk of unintended pregnancy when stay-at-home measures are in effect, and continuation or initiation of appropriate contraception should be addressed, including emergency contraception. Based on clinical trial data, use of intrauterine devices and contraceptive implants beyond the expiration date specified on a package insert may be considered.[23] Depot-medroxyprogesterone acetate also may be considered for subcutaneous self-injection.

Special Considerations for Pregnancy, HIV, and COVID-19

COVID-19 and Pregnancy

- Although data are limited, no evidence to date suggests that pregnant individuals are more susceptible to SARS-CoV-2 infection than non-pregnant individuals.

- Overall, the risk of severe COVID-19 disease or death remains relatively low in pregnant individuals when compared with non-pregnant women of reproductive age. However, studies from the United States, United Kingdom, and Sweden, as well as a meta-analysis of 77 studies, demonstrate that pregnant women with COVID-19 have an increased risk of hospitalization, intensive care admission, and mechanical ventilation compared to age-matched non-pregnant women with COVID-19. Some but not all of these studies found an increased risk of death among pregnant women with COVID-19.[24-28]
- As in the overall population, a disproportionately high rate of COVID-19 exists among pregnant women of color compared with white women and possibly an increased rate of COVID-19 severity among pregnant women of color compared to white women.[24, 27, 29, 30]
- Cohort studies have not shown an increase in fetal loss in pregnant women with COVID-19 compared to those without COVID-19.[25, 31, 32]
- Emergency cesarean delivery and preterm delivery (28–36 weeks gestation) appear to be increased in pregnant women with COVID-19 compared with those without COVID-19. Although some increase in neonatal intensive care unit admission in neonates exposed to SARS-CoV-2 has been seen, this trend is primarily due to complications of prematurity or known exposure, and most neonates do well.[25, 28, 32]
- Vertical transmission of SARS-CoV-2 from mother to infant appears to be very uncommon; neonatal infection appears in most cases to occur postnatally.[32, 33]

COVID-19, Pregnancy, and HIV

- Currently, limited data are available on pregnancy and maternal outcomes in individuals who have COVID-19 and none specific to pregnancy outcomes in individuals with COVID-19 and HIV.
- Pregnant individuals with HIV who have COVID-19 should be clinically managed in the same way as pregnant individuals without HIV who have COVID-19, including when making medical care triage determinations and decisions about vaccination and treatment. COVID-19 treatment and vaccination should not be withheld for pregnant individuals with HIV; see the joint statement by the American College of Obstetricians and Gynecologists and the Society of Maternal Fetal Medicine.
- Pregnant individuals with HIV admitted for COVID-19 should continue their ARV regimen. Clinicians should consult with an HIV expert if any changes in regimens are needed for individuals not virally suppressed.

Children with HIV

Knowledge to date about COVID-19 in children and in children with HIV can be summarized as follows:

- Minimal data exist on COVID-19 among children with HIV infection. One report from South Africa of 159 children with COVID-19 included two children with HIV.[34] Although both children with HIV were hospitalized, only one was symptomatic, and neither died. HIV infection did not seem to contribute to more severe COVID-19 illness.[35] Like the adult population, children and adolescents of color have disproportionately higher rates of COVID-19 disease and hospitalization.[36]
- Children appear less likely to become severely ill with COVID-19 than older adults.[37-39]
- Some subpopulations of children at increased risk of more severe COVID-19 illness may exist: Younger age (younger than 1), obesity, underlying pulmonary or cardiac pathology, and immunocompromising conditions are associated with more severe outcomes.[40]
- A multisystem inflammatory syndrome in children (MIS-C) presenting with hyperinflammatory shock with features of Kawasaki disease and toxic shock syndrome has been described to be temporally associated with SARS-CoV-2 infection in the United States, United Kingdom, Europe, and South Africa, with the syndrome occurring 2 to 4 weeks or more following infection. The children have serologic evidence of infection but may not have positive nasopharyngeal RT-PCR testing.[41-43] Children can present with diverse signs and symptoms, including fever and gastrointestinal symptoms; significantly elevated markers of inflammation; and, in severe cases, myocarditis and cardiogenic shock. Children with MIS C tend to be older (mean age 8 years) than in classic Kawasaki disease (peak incidence at age 10 months).[44, 45]
- Infants and children with HIV should be current on all immunizations, including influenza and pneumococcal vaccines. Refer to the Guidelines for the Prevention and Treatment of Opportunistic Infections in HIV-Exposed and HIV-Infected Children information on immunizations, including a vaccine schedule for children with HIV.
- Guidance for ART management and clinic or laboratory monitoring visits related to HIV care in children with HIV during the pandemic should follow the guidance outlined above (See “Antiretroviral Therapy” and “Clinic or Laboratory Monitoring Visits Related to HIV Care” sections).

More information regarding ARV management in adult, pregnant, and pediatric patients, as well as recommendations for prophylaxis and treatment of specific opportunistic infections, can be found in the medical practice guidelines for HIV/AIDS.

COVID-19: Considerations for People with HIV

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This document on COVID-19 considerations for people with HIV (PWH) is intended as a resource for clinicians and public health officials. The information is based on evolving best practices developed during the coronavirus pandemic and the available published data on COVID-19. *See the IDSA Real-Time Learning Network's HIV and COVID-19 literature review*. This document will be updated as new data and information become available.

This information is not intended to supersede existing clinical practice guidelines, nor should it be construed as a care directive. For HIV treatment, refer to the HHS *Guidelines for the Use of Antiretroviral Agents in Adults and Adolescents with HIV* and the HHS HIV/AIDS Guidelines Panel's Interim Guidance for COVID-19 and Persons with HIV. Email HIVMA with suggestions or questions and visit the IDSA RTLN. for additional resources.

Vaccines

The Centers for Disease Control and Prevention recommend that because people with HIV may be at higher risk for serious illness, they can receive the Pfizer-BioNTech and Moderna COVID-19 vaccines if they have no contraindications. They should be counseled that we do not yet know whether the level of protection for people with HIV is as strong as it is for those without HIV. Like everyone else, they should continue to protect themselves and others by wearing face coverings, practicing physical distancing and avoiding crowds because we also do not yet know whether the vaccines prevent infection entirely or just prevent infection from turning into severe disease.

Currently, in most states health care workers and individuals living in nursing homes or long-term care facilities are eligible to receive the two mRNA vaccines that have been given emergency use authorization by the U.S. Food and Drug Administration. During the next phase, essential workers and persons 75 and older will be prioritized for vaccination. People with HIV who fall into any of these groups should be eligible to receive the vaccines barring any contraindications.

Patients with HIV Hospitalized with COVID-19

- PWH on antiretroviral treatment have a normal life expectancy. Therefore, **HIV status should not be a factor in medical decision-making regarding the triaging of potentially lifesaving interventions or enrollment into clinical trials**. Since HIV is eminently treatable, *whether HIV is currently controlled or not* should also not be factor in triaging clinical care interventions, or resources for COVID-19.
- Care and treatment for COVID-19 in PWH should follow the same protocols advised for patients without HIV. See the IDSA Guidelines on the Treatment and Management of Patients with COVID-19 and the NIH COVID-19 Treatment Guidelines.

- Emerging data on COVID-19 in people with HIV suggest that they may be at higher risk for severe disease and worse outcomes. However, it is not yet known if this is due to immunodeficiencies; high rates of comorbid conditions, such as cardiovascular disease, hypertension, obesity and diabetes; or the social determinants of health, including poverty and poor health care access.
- Until more data are available **heightened awareness for severe disease should be considered for persons with HIV**, particularly those who have other comorbidities associated with worse COVID-19 outcomes or CD4+ T cells <200/ml and viral loads > 1000/ml (see Interim Guidance).
- **Consultation with an HIV or infectious diseases (ID) specialist** is strongly recommended for people with HIV who are hospitalized for the treatment of COVID-19.
- If HIV or ID expertise is not available locally, the national Clinician Consultation Center maintains an HIV management warmline Monday to Friday from 9 am ET to 8 pm ET. HIV treatment consultation is available by leaving a voicemail message at **(800) 933-3413 or submitting a** case online **(registration required).** The service responds to voicemail messages as soon as possible with the average response time being 30 to 60 minutes during their business hours. Cases submitted online are responded to within one business day.
- For providers caring for pregnant women with HIV who are also admitted with COVID-19, the Perinatal HIV/AIDS Hotline -- **(888) 448-8765** -- provides 24 hour/7 day week consultation services.
- **Antiretroviral therapy should be continued during hospitalization for COVID-19 without interruption** and changes in therapy are generally not recommended.
- For patients who have not initiated antiretroviral therapy or have been off therapy for > 2 weeks prior to hospitalization, consult with an HIV or ID specialist about a safe plan for initiating antiretroviral therapy as soon as is clinically feasible.
- If a patient is on a COVID-19 clinical trial with a drug active against HIV, an HIV or ID specialist should be consulted to ensure their HIV therapy remains appropriate and that a complete antiretroviral regimen is maintained. In addition, if a patient admitted for COVID-19 is in an HIV-related clinical trial, their ID/HIV providers should be contacted.
- Medications used for treatment of COVID-19 may interact with some HIV medications. **The Liverpool Drug Interaction Group is maintaining prescribing resources for experimental COVID-19 treatments including drug interaction information**.
- For patients who are not able to swallow medications, consult an HIV or ID specialist. Also refer to a resource like this one from the Toronto General Hospital on *Oral Antiretroviral/HCV DAA Administration: Information On Crushing And Liquid Drug Formulations*.

Diagnostic Testing

Follow the IDSA *Guidelines on the Diagnosis of COVID-19* when prioritizing diagnostic testing for COVID-19. As recommended in the guidelines for the general population, people with HIV who are symptomatic should be prioritized for diagnostic testing or who have been exposed to COVID-19 depending on the availability of testing. We have insufficient data in people living with HIV at this time to suggest what laboratory parameters comprise increased immunologic risk for severe COVID-19 disease.

Clinical Trials

People with HIV who are virally suppressed should not be excluded from COVID-19 clinical trials, including trials of therapeutics, prophylaxis, and vaccines. It is important to evaluate the response of people with HIV to COVID-19 therapies and prevention interventions, including vaccines, to ensure interventions approved by the U.S. Food and Drug Administration include an indication for people with HIV.

Issues for Ambulatory HIV Care Management

Social and Physical Distancing

All patients should be educated on the importance of following the CDC guidelines to promote physical distancing and to wear face coverings in public to reduce spread of the virus. Clinic and clinical protocols should be adjusted to support physical distancing through telehealth and home delivery of medication when possible.

HIV Treatment

Changes in antiretroviral therapy to prevent or treat COVID-19 are generally not recommended, except in the context of a clinical trial, a documented failing HIV regimen, and in consultation with an ID or HIV specialist. Please refer to the HHS Interim Guidance for COVID-19 and Persons with HIV.

HIV Viral Load Monitoring

Laboratory monitoring for HIV remains important and should follow current guidelines when possible (see *Guidelines for the Use of Antiretroviral Agents in Adults and Adolescents with HIV* and the HHS HIV/AIDS Guidelines Panels Interim Guidance for COVID-19 and Persons with HIV). However, it is important to recognize that some of the same resources (personnel, machines, reagents) that are used for HIV RNA testing are also used for COVID-19 testing which might result in limited viral load testing capacity. In these cases, HIV viral load testing **should be prioritized for those who are on a new regimen, have had recent blips, who are pregnant, or who otherwise do not have a history of stable suppression over time**.

Routine Office Visits

For stable patients, or patients with non-urgent appointments, schedule a telephone or telehealth encounter if that is an option. Check with your patients to see if they have COVID-19 questions. For patients with non-respiratory urgent concerns, consider keeping the appointment or offering a telehealth or telephone visit. The American Society of Addiction Medicine has guidance on maintaining access to buprenorphine by leveraging telehealth.

HRSA's HIV/AIDS Bureau is encouraging the use of telehealth in Ryan White clinical settings to support social distancing and refers to PCN #16-02 in support of the policy. The Center for Connected Health Policy is a resource for updates on state telehealth policies. ACGME is maintaining a web page with guidance for residents and fellows, including for participation in telehealth visits. For protocols for telehealth and in person appointments, please see the Practice Resources/Telehealth section of the IDSA Resource Center. Also see IDSA's *Medicare Telehealth: What You Need to Know*.

Prescription Drug Refills

Patients should maintain at least a supplemental 30-day supply of their medications to prevent the possibility of treatment interruptions. A number of health insurers and state AIDS Drug Assistance

Programs are allowing early medication refills and lifting quantity limits in addition to making other changes to their coverage policies. Many health insurers require patients to have a new prescription to obtain a 90-day supply and/or switch to mail order. Please check with your patients to see if they need a new prescription.

Ryan White HIV/AIDS Program

The HIV/AIDS Bureau maintains an online Frequently Asked Questions resource that is regularly updated with questions raised by Ryan White Program grantees.