

27 March 2020: no 4

COVID-19 special issue

CONTENTS

EDITORIAL	2	COVID-19: DIAGNOSTICS	12
SUPPLEMENTS	2	• Introduction	
• U=U resources for UK clinics: free posters, postcards and factsheets		• Fast, portable tests come online to curb coronavirus pandemic	
i-BASE APPEAL	3	• FDA approves 45-minute coronavirus test from Cepheid	
• i-Base 2020 appeal... we need your help....		• FDA approves 15-minute coronavirus test from Abbott	
COVID-19: INTRODUCTION	3	COVID-19: UPCOMING STUDIES	13
• Resources on HIV and COVID-19		• Ongoing and planned studies	
COVID-19: GUIDELINES	4	• NEAT ID develop COVID-19 and HIV coinfection data dashboard	
• US interim guidelines on COVID-19 and HIV		COVID-19: OPEN-ACCESS PUBLICATIONS	13
• BHIVA statements on HIV and COVID-19		• Open access publishing on US PubMed Central	
• Children's HIV Association (CHIVA) statement		• Open access publications on COVID-19 include Lancet, Nature, NEJM, JAMA, JID, CID and others	
• NICE updates rapid COVID-19 guideline on critical care		• Selected articles by UCSF: download 60 papers	
• French guidelines for protection of cancer patients against COVID-19		COVID-19: PREGNANCY	14
• Guidelines for managing COVID-19 from the Survive Sepsis Campaign		• Peer-review articles on early case of COVID-19 and pregnancy	
• IDSA resource center on COVID-19		COVID-19: SEX, HIV and STIs	15
COVID-19: EARLY TREATMENT	7	• Sex, HIV and STIs during COVID-19 pandemic	
• Early drugs being studied for COVID-19		COVID-19: ON THE WEB	15
COVID-19: TRANSMISSION RISK	9	• Online resources on COVID-19 for people living with HIV	
• Aerosol and surface stability of SARS-CoV-2 as compared with SARS-CoV-1		• i-Base Q&A service	
• Median estimated incubation period of COVID-19 is five days – but can be two weeks		• HIV Scotland: HIV, PrEP, COVID-19, sex: what you need to know	
• Clinical outcomes of adult inpatients with COVID-19		• ITPC - Q&As for HIV positive people globally	
COVID-19: EPIDEMIOLOGY	10	• BHIVA: Eight questions for HIV positive people	
• Online updated figures by country		• US Centre for Disease Controls (CDC) FAQ	
• Public health responses to COVID-19 outbreaks on cruise ships		• International AIDS Society (IAS): COVID-19 and HIV: What you need to know	
• Genomic study points to natural origin of COVID-19		• JAMA: stopping the spread of COVID-19	
• COVID-19 denialism: differentiating real news from rumours		• Online talks and webinars to learn about COVID-19	
COVID-19: PATHOGENESIS	11	DRUG INTERACTIONS	17
• Clinical characteristics of COVID-19 in China		• Drug-drug interactions and COVID-19	
• COVID-19 is associated with significant drops in CD4 count		FUTURE MEETINGS	18
• CoV-2 viral load in throat saliva samples correlates with clinical outcomes from COVID-19		• Conference listing 2020 - including new meeting changes	
		PUBLICATIONS & SERVICES FROM I-Base	19
		ORDER FORM	20

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HIV TREATMENT BULLETIN

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<http://www.i-Base.info>

or by sending an email to: subscriptions@i-Base.org.uk

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HTB is a not-for-profit community publication. It reviews the most important medical advances related to clinical management of HIV including access to treatment. We compile comments to articles from consultant, author and editorial responses.

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EDITORIAL

This edition of HTB is on the global health crisis related to the new coronavirus (SARS CoV-2) and COVID-2019 and the effect it will have for people living with HIV.



Given the rapid pace of information, advice, research and recommendations about COVID-19, many of the links and information might either soon be outdated - or superseded. As with all health information, please check the date.

The importance of updating information online, even after it has been published, means that this issue includes many links, rather than using current online text.

i-Base also has a COVID-19 page for new links and updates over the coming weeks and months.

www.i-Base.info/covid-19

The selected links are just a small selection and they will likely only have a limited shelf-life. We have only included research that is available as open access papers. And it is notable that the urgency of the crisis has called for all papers to become open access.

In addition for comments from the HTB advisory board (who support all issues of HTB with their feedback), this issue has been compiled with support of discussions with other activist and several community discussion groups.

Thanks especially to Lynda Dee, Richard Jefferys, Jules Levin, Michael Louella, Jeff Taylor and Nelson Vergel.

Community forums include: AIDS Treatment Activist Coalition (ATAC), European AIDS Treatment Group (EATG), ATAC Immune-Based Treatment (ATAC-IBT), International Treatment Preparedness Coalition (ITPC) and the UK Community Advisory Board (UK-CAB).

And while reading time this issue month might be shorter, it would really help i-Base if readers could help with feedback using this short online survey.

<https://www.surveymonkey.co.uk/r/KCXXT3F>

HTB reader's survey 2020

Please could you spend five minutes to help with a short HTB reader's survey.

This only includes 10 short questions with space for additional comments.

Your feedback will help us develop HTB this year.

Online link

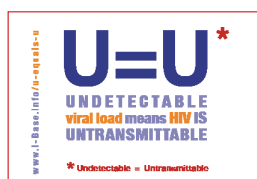
<https://www.surveymonkey.co.uk/r/KCXXT3F>

**h t b
reader
survey**

SUPPLEMENTS

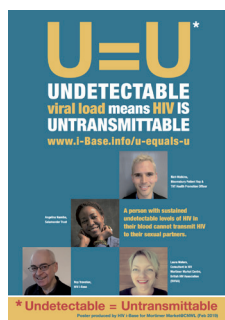
U=U resources for UK clinics: free posters, postcards and factsheets

Please continue to order these free resources.



Customise U=U posters for your clinic

i-Base can customise U=U posters to include pictures of your doctors, nurses, pharmacists, peer advocates or any other staff that would like to help publicise U=U.



For further information please contact Roy Trelvelion at i-Base: roy.trelvelion@i-base.org.uk

i-Base 2020 appeal

This year we are continuing a funding appeal to help i-Base continue to provide free publications and services during 2020.

**i-base
appeal
2020**

i-Base now receive more than 12,000 questions each year and the website has more than 500,000 view each month. We also distribute more than 80,000 booklets and leaflets free to UK clinics every year.

If 1000 people support us with £5 a month we will be on course to meet our funding shortfall. All help is appreciated.

<http://i-base.info/i-base-appeal-we-need-your-help>

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To join the email list for HTB please register free online:

<http://i-base.info/htb/about/subscribe>

COVID-19: INTRODUCTION

Resources on HIV and COVID-19

Simon Collins, HIV i-Base

The last weeks have seen unparalleled social, economic, and medical responses to coronavirus that would have been unthinkable only a month earlier, even with the China, South Korea, Taiwan, Italy and Spain as likely models.



The restrictions to regular life will continue for weeks, if not months, and the implications for people living with HIV have slowly gained consensus, even though based on very limited evidence.

On 23 March 2020, the UK moved to a general lock-down for individuals to stay at home in order to protect NHS services. This further merged the advice for HIV positive people and the general population.

This issue of HTB links to recent i-Base articles and posts about the new coronavirus and COVID-19 and to some of the key papers that are all online as open access.

COVID-19: GUIDELINES

US interim guidelines on COVID-19 and HIV

Simon Collins, HIV i-Base

On 20 March 2020, the US Department of Health and Human Services (HHS) published interim guidelines on special considerations about COVID-19 for people living with HIV and their health providers. [1]



The document was drafted by the same writing groups that publish other leading US HIV treatment guidelines for adults and children.

It provides guidance under six main headings, summarised below, but please refer to the full online document for details.

1. Guidance for all people living with HIV

This covers general information about risk for HIV positive people.

This is similar to that provided by BHIVA and WHO in that people on effective ART have similar risk as the general population. [2, 3]

Those not on ART or with a low CD4 count (defined as <200 copies/mL) should cautiously be assumed to have a higher risk. Similar advice to reduce risk but washing hands and limiting social interactions are recommended.

The importance of older age (>65 years) and other serious health conditions is emphasised (especially lung, heart, liver and kidney disease). Smoking is also listed as an important risk.

HIV positive people should keep at least one to three months of ART at home, and use home delivery when possible. Unless urgent, changing ART should be delayed until follow-up appointments are easier to arrange.

As with other guidelines, there is no recommendation to use lopinavir/r, especially given a recent study to treat COVID-19 was not successful.

Routine monitoring is less important for people on stable ART. Telephone or virtual appointments are recommended when possible. Any clinic visit should consider the risk and benefits of seeing a doctor compared to the risk of catching coronavirus.

The guidelines also refer to non-technical information produced for HIV positive people by the US CDC:

<https://www.cdc.gov/coronavirus/2019-ncov/specific-groups/hiv.html>

2. Guidance for specific populations

This section recognises the limited data in most settings and links to specialist information from other organisations. The sections on pregnancy and children do not suggest higher risks than for the general population.

Links:

- **People with HIV and in opioid treatment programmes**

<https://www.samhsa.gov/medication-assisted-treatment>

- **Pregnant women with HIV**

<https://www.cdc.gov/coronavirus/2019-ncov/specific-groups/pregnant-women-and-children.html?>

<https://www.smfm.org/covid19>

<https://www.acog.org/clinical/clinical-guidance/practice-advisory/articles/2020/03/novel-coronavirus-2019>

- **Children with HIV**

<https://www.cdc.gov/coronavirus/2019-ncov/hcp/pediatric-hcp.html>

3. Guidance for self-isolation or people in quarantine due to exposure to coronavirus

This includes guidelines for both health workers with HIV positive clients (ensuring ART supply and planning for future COVID-19 symptoms).

Information for people living with HIV includes updating your doctor and including information about your current ART supply.

4. Guidance for people with HIV who have fever or respiratory symptoms

This section defers to online US CDC recommendations for health workers and people with symptoms.

Health workers:

<https://www.cdc.gov/coronavirus/2019-ncov/infection-control/control-recommendations.html?>

People with HIV:

<https://www.cdc.gov/coronavirus/2019-ncov/symptoms-testing/symptoms.html>

- Anyone with a fever and symptoms (e.g., cough, difficulty breathing), should call their doctor or clinic.
- Call the clinic in advance is important (rather than going to a clinic).
- Anyone who does visit a clinic should use hand washing and shielded coughing etc. If you don't already have one, ask for a face mask when you arrive. It is essential to tell the clinic about symptoms straight away to reduce further risks of COVID-19 transmission in the clinic.

5. Guidance for managing people with HIV who develop COVID-19

This section covers the different circumstances depending on whether someone can manage symptoms at home or if they need to go to hospital. In both cases, continuing ART is stressed.

Also, unless medically needed, changes to ART should be avoided.

Treatments with long-acting formulations (infusions or injections) might need special arrangements. People using experimental

treatment as part of a study should also have this continued if possible.

Continuing ART in people who are critically ill and need GI tube feeding can be informed by this Canadian guide:

https://www.hivclinic.ca/main/drugs_extra_files/Crushing%20and%20Liquid%20ARV%20Formulations.pdf (PDF)

6. Additional guidance for HIV doctors

The final section provides information about the important role HIV doctors have in terms of getting access to care in the US, but that are also important in other countries.

It stresses that HIV positive people might need additional help with food, housing, transportation, and childcare during times of crisis and economic fragility. Doctors can help with getting social assistance and navigating to other essential resources.

Also that the need for physical distancing and isolation might worsen mental health and substance use and that additional telephone and virtual contact with HIV positive patients might be especially important during this crisis.

References

1. US Department of Health and Human Services (HHS). Interim Guidance for COVID-19 and Persons with HIV. (20 March 2020). <https://aidsinfo.nih.gov/guidelines/html/8/covid-19-and-persons-with-hiv--interim-guidance-/0?utm>
2. EACS and BHIVA. EACS & BHIVA statement on risk of COVID-19 for people living with HIV (PLWH) (20 MARCH 2020) <https://www.eacsociety.org/home/covid-19-and-hiv.html>
3. WHO. Q&A on COVID-19, HIV and antiretrovirals. (17 March 2020). <https://www.who.int/news-room/q-a-detail/q-a-on-covid-19-hiv-and-antiretrovirals>

BHIVA statements on HIV and COVID-19

Simon Collins, HIV i-Base

Over the last few weeks, BHIVA have posted eight online statements about COVID-19. They are collected on this page where future updates will be added.



<https://www.bhiva.org/Coronavirus-COVID-19>

BHIVA statement on COVID-19 and advice for the extremely vulnerable (25 March 2020)

This statement updates advice based on new information from the UK government about social physical distancing.

<https://www.bhiva.org/BHIVA-and-THT-statement-on-COVID-19-and-advice-for-the-extremely-vulnerable>

BHIVA statement on management of a pregnant

woman living with HIV and infant testing during Coronavirus (COVID-19) (25 March 2020)

This statement refers to minimal HIV monitoring for HIV positive women who are pregnant during the current coronavirus crisis and for HIV monitoring of the infant.

<https://www.bhiva.org/management-of-a-woman-living-with-HIV-while-pregnant-during-Coronavirus-COVID-19>

Comment from BHIVA ON Social Distancing and Shielding to (23 March 2020)

<https://www.bhiva.org/comment-from-BHIVA-and-THT-on-UK-Government-guidance-on-Coronavirus-COVID-19>

This information looks at how to protect against COVID-19 depending on your CD4 count. Having a CD4 count less than 50 cells/mm³ makes someone “extremely vulnerable”. This means following advice for “shielding” - basically isolating at home for three months with support to get supplies and food.

1. People with a CD4 count <50 or opportunistic illness in last 6 months: follow **shielding advice** for extremely vulnerable. This includes avoiding face-to-face contact for 12 weeks - and will need support to do this.
2. People with CD4 <200, detectable viral load or not on ART: follow **social distancing advice** very closely.
3. People with CD4 >200 and undetectable on ART: follow **general population advice** (ie social physical distancing).

EACS & BHIVA Statement on risk of COVID-19 for people living with HIV (PLWH) (20 MARCH 2020)

<https://www.eacsociety.org/home/covid-19-and-hiv.html>

This joint statement is to emphasise consistent expert opinion across Europe that HIV is not an additional risk for COVID-19 if someone is on effective ART. Having a CD4 count below 200 cells/mm³ or not being on ART is likely to increase the risk though.

There is no evidence to support any benefit from HIV meds against coronavirus. Neither ART nor PrEP will protect against or treat coronavirus.

Liverpool University have published a new website (www.covid19-druginteractions.org) for the experimental drugs being studied to treat COVID-19.

Coronavirus (COVID-19) and HIV - Responses to common questions (19 March 2020)

<https://www.bhiva.org/coronavirus-and-HIV-responses-to-common-questions-from-BHIVA>

This update answers **eight common questions about COVID-19 for HIV positive people**. It includes that HIV drugs are not effective against coronavirus, to continue taking ART as usual, and that there are no problems with supplies of HIV meds. Self-distancing is important (not self-isolation), as is following advice for general population to reduce risk.

BHIVA statement on self-isolation/distancing (17 March 2020)

<https://www.bhiva.org/coronavirus-and-HIV-responses-to-common-questions-from-BHIVA>

This update mainly refers people to the UK Government website (<https://www.gov.uk/government/publications/covid-19-guidance-on-social-distancing-and-for-vulnerable-people/guidance-on-social-distancing-for-everyone-in-the-uk-and-protecting-older-people-and-vulnerable-adults>) to explain how to respond to the advice to limit social interactions.

BHIVA update on coronavirus (COVID-19) and HIV (13 March 2020)

<https://www.bhiva.org/BHIVA-statement-on-COVID-19>

Following CROI 2020, there continues to be no evidence that people with HIV are at higher risk of COVID-19, or severe disease if affected, and no evidence regarding the impact of viral load or CD4 on either of these.

You may have read that the HIV drug lopinavir/ritonavir (Kaletra) is being studied as a possible treatment for COVID-19 but this is based on very limited evidence for similar viruses. So far there is no good evidence that lopinavir/ritonavir is beneficial, and no evidence that other HIV drugs will help. For anyone taking HIV drugs for treatment or prevention, we recommend continuing to take treatment as recommended, and not increasing the dose or switching to other medications unless otherwise indicated.

There has been one case report published of a man with HIV and diabetes who was hospitalised with COVID-19, treated with lopinavir/ritonavir and who subsequently recovered. However, this provides no further information on the impact of either HIV per se, or lopinavir/ritonavir, on COVID-19: <https://onlinelibrary.wiley.com/doi/10.1002/jmv.25732>

BHIVA continue to recommend following national advice as provided here <https://www.gov.uk/guidance/coronavirus-covid-19-information-for-the-public> and encouraging people with HIV to ensure they have had their flu and appropriate pneumococcal vaccines (as per BHIVA vaccine guidelines.) We also advise that patients have at least 30-days medication available and sufficient supply to allow for possible travel restrictions or quarantine, if they are planning to leave the UK.

Individual organisations will be making their own contingency plans, and most non-urgent services are being asked to minimise face-to-face appointments. As the set-up and capacity of services will vary significantly, we cannot give specific recommendations, but if people have examples of good practice they wish to share, BHIVA can facilitate this. Sensible steps include updating your website if you have one, using out-of-office replies to direct patients to appropriate advice and ensuring all patient-facing staff are aware of the latest national information and guidance.

We advise against prescribing longer than usual medication supplies as stocks can be fragile at any time. Please also note, for those of you based in England, NHSE have instructed us to avoid signing new people up to Homecare as they need to focus on maintaining current capacity.

BHIVA recommendations for COVID-19 (27 February 2020)

<https://www.bhiva.org/comment-on-COVID-19-from-BHIVA>

- Following the regularly updated advice from Public Health England, Health Protection Scotland, Public Health Wales, the Department of Health Northern Ireland and the Health Service Executive Ireland.
- Ensuring people with HIV have received influenza and pneumococcal vaccination in line with BHIVA vaccine guidelines.

Children's HIV Association (CHIVA) statement

The Children's HIV Association have set up a web page to feature information about coronavirus and children living with HIV.

This currently includes a statement on COVID-19 and social distancing, with similar information to that produced by BHIVA for adults.

New content and updates will be added to this page.

<https://www.chiva.org.uk/professionals/covid-and-hiv/>

NICE updates rapid COVID-19 guideline on critical care

Initial NICE guidelines were updated on 25 March 2020 after concerns raised by patient groups about the application of the initial rapid COVID-19 critical care guideline.

<https://www.nice.org.uk/news/article/nice-updates-rapid-covid-19-guideline-on-critical-care>

US interim clinical guidance for management of patients with confirmed coronavirus disease (COVID-19)

Clinical guidelines published by the US CDC, so far updated at least twice, and including comment on investigational treatment.

<https://www.cdc.gov/coronavirus/2019-ncov/hcp/clinical-guidance-management-patients.html>

French guidelines for protection of cancer patients against COVID-19

Guidelines commissioned by the French Health Ministry based on concerns about greater risk of coronavirus on people with cancer.

“For patients with cancer infected with influenza, the risk of hospital admission for respiratory distress is four times higher, and the risk of death ten times higher than patients without cancer. This exacerbation seems to be particularly marked in those with neutropenia or lymphopenia, a feature commonly seen in patients with cancer treated with multiple therapies.”

Ref: You B et al The official French guidelines to protect patients with cancer against SARS-CoV-2 infection. *The Lancet Oncology*. DOI: 10.1016/S1470-2045(20)30204-7. (25 March 2020).

[https://www.thelancet.com/journals/lanonc/article/PIIS1470-2045\(20\)30204-7/fulltext](https://www.thelancet.com/journals/lanonc/article/PIIS1470-2045(20)30204-7/fulltext)

Guidelines for managing COVID-19 from the Survive Sepsis Campaign

Guidelines on the Management of Critically Ill Adults with Coronavirus Disease 2019 produced by the Surviving Sepsis Campaign (SSC) has been released (COVID-19).

<https://www.sccm.org/SurvivingSepsisCampaign/Guidelines/COVID-19>

IDSA resource center on COVID-19

<https://www.idsociety.org/public-health/COVID-19-Resource-Center>

The Infectious Disease Society of America (IDSA) website now includes a COVID-19 page with links to resources on developments, guidelines, protocols, policies, and tools for practitioners.

Sources include those provided by the US CDC, the FDA, the Centers for Medicare & Medicaid Services and the WHO, as well as COVID-19 reports in IDSA journals, and the IDSA/HIVMA Science Speaks blog.

This compilation will be updated as resources and new information becomes available.

COVID-19: PIPELINE TREATMENTS

Early drugs being studied for COVID-19

Simon Collins, HIV i-Base

This section on potential treatment mainly includes links to other coverage of COVID-19.



It also includes links to several reviews of potential drugs.

Although some compounds have shown potential activity in vitro, the first results show little clinical effect.

The urgency to find treatment for people in critical care with high mortality often leads to optimistic reports from small or uncontrolled studies. This has difficult parallels with early HIV studies.

Many researchers are looking at potential drugs that could be repurposed for COVID-19. These include lopinavir/r, remdesivir, chloroquine (or hydroxychloroquine), favipiravir (favilavir) an anti-flu drug approved in Japan), corticosteroids, nitazoxanide and monoclonal antibodies (including tocilizumab and meplazumab).

Although there are too many potential compounds to report below, many articles reviewing these and other compounds for treatment or vaccines are online and provide more in-depth coverage. [1, 2, 3, 4]

The COVID-19 health crisis has also refocused use and debate about trial design and use of expanded/compassionate access programmes that were developed during the pre-ART era for HIV. [5]

Remdesivir

Remdesivir is an investigational antiviral drug developed for Ebola (but without benefit), that has in-vitro activity against CoV-2. It is currently in at least four randomised clinical studies. Early results from some studies is expected in April 2020.

Remdesivir is being developed by Gilead Sciences.

Recent news included an expanded access programme for off-label use in people unable to participate in clinical studies. This programme has since been restricted due to very high levels of demand although the company is also committed to reestablishing it. [6, 7]

A press release that announced that remdesivir had been granted FDA status for development as an orphan drug was shortly followed by a press release that Gilead would not be using the orphan drug benefits. [8]

First data on single case reports from expanded access use was also just published in several patients in France. [9]

ARVs as treatment: lopinavir/r

Although several early reports included using HIV protease inhibitors to treat COVID-19, notably lopinavir/r (Kaletra), the first results failed to show benefits in reducing symptoms or earlier clearance measure by PCR.

This was sufficient for the UK government to restrict lopinavir/r from parallel importing in order to maintain supplies for (the expected very few) HIV positive people who still use lopinavir/r as treatment.

An opposite approach was taken in Switzerland, where HIV positive people on lopinavir/r were asked to switch to alternative ART in order to free up supplies for people in critical care with COVID-19 and who were without other treatment options.

Three papers have already been published (one of which is not peer-reviewed) from using lopinavir/r to treat COVID-19

A randomised study published in the NEJM reported no benefit of lopinavir/r compared to standard of care in 199 people with severe COVID-19. Endpoints included clinical benefit, mortality and viral load at different timepoints. [10]

A retrospective analysis of using either lopinavir/r alone or in combination with an influenza drug used in Russia and China called umifenovir (Arbidol) report significant benefits in the combination group with 12/16 vs 6/17 having undetectable viral load from throat swabs after one week. After 14 days these responses were 15/16 vs 9/17 respectively. [11]

A third study, not yet peer-reviewed, randomised 44 adults with mild/moderate COVID-19 to lopinavir/r, arbidol or standard of care. Neither of the monotherapy arms showed significant benefits compared to standard of care. [12]

A small UK study using lopinavir/r with the anti-inflammatory steroid dexamethasone was recently announced. [13]

Darunavir: not supported by data

A press release from Johnson & Johnson announced that although it is screening its antiviral compounds to determine potential in-vitro effect against CoV-2, there is no evidence that darunavir has any effect. [14]

It notes that the company is partnering with multiple organisations to support the development of research programmes and fast-track solutions for COVID-19

Chloroquine and hydroxychloroquine (HCQ)

The preliminary research into using the anti-malarial drugs chloroquine and hydroxychloroquine in combination with azithromycin was widely reported as possibly having some effect (a problematic study due to small numbers) [15], it was certainly not helped by a Trump tweet touting this as “one of the biggest game changers in the history of medicine”. [16]

This not only jeopardised drugs supplies for people needing these drugs for existing conditions (notably for autoimmune diseases including lupus and rheumatoid arthritis) but led to unsupervised off-label used that resulted in at least one death. [17]

Other reports stress the limited data available and the potential side effects of both compounds. [18, 19, 20]

Meplazumab

A small open-label study of meplazumab that used historical controls has not been peer reviewed yet, but reported significantly reduced severity of symptoms and short time to undetectable viral load. [21]

Passive antibody treatment

A paper in JAMA describes clinical outcomes in five Chinese patients with laboratory-confirmed COVID-19, acute respiratory distress syndrome and high viral loads that were given human plasma with SARS-CoV-2 antibodies obtained from previously infected and recovered patients. [22]

JAMA also include editorial commentary on this approach. [23]

Another paper in JCI looks at the the use of passive antibody therapy from people who have recovered from COVID-19 to mediate protection by viral neutralisation. [24]

References

1. McCreary EK. COVID-19 treatment: a review of early and emerging options. *Open Forum Infectious Diseases*, ofaa105, DOI: 10.1093/ofid/ofaa105. (23 March 2020).
<https://academic.oup.com/ofid/advance-article/doi/10.1093/ofid/ofaa105/5811022>
2. Pogue J. Treatment options for COVID-19. The Society of Infectious Diseases Pharmacists. YouTube talk.
https://www.youtube.com/watch?v=bGk9ul81s_E
3. Clinical Trials Arena. Coronavirus treatment: vaccines/drugs in the pipeline for COVID-19. (26 March 2020).
<https://www.clinicaltrialsarena.com/analysis/coronavirus-mers-cov-drugs/>
4. PharmaTimes. Potential Pipeline Medications May Help Patients With Novel Coronavirus (11 March 2020).
<https://www.pharmatimes.com/news/potential-pipeline-medications-for-the-coronavirus>
5. Kalil AC. Treating COVID-19—off-label drug use, compassionate use, and randomized clinical trials during pandemics. *JAMA viewpoint*. (24 March 2020).
<https://jamanetwork.com/journals/jama/fullarticle/2763802>
6. Gilead press statement. Gilead Sciences Update on the company's ongoing response To COVID-19. (22 March 2020).
<https://www.gilead.com/purpose/advancing-global-health/covid-19>
7. O'Day, D. An Open Letter from our Chairman and CEO. (28 March 2020).
<https://www.gilead.com/stories/articles/an-open-letter-from-our-chairman-and-ceo>
8. Gilead press statement. Gilead sciences statement on request to rescind remdesivir orphan drug designation.
<https://www.gilead.com/news-and-press/company-statements/gilead-sciences-statement-on-request-to-rescind-remdesivir-orphan-drug-designation>
9. Lescure FX et al. Clinical and virological data of the first cases of COVID-19 in Europe: a case series. *Lancet Infectious Diseases*. DOI: 10.1016/S1473-3099(20)30200-0. (27 March 2020)
[https://www.thelancet.com/journals/laninf/article/PIIS1473-3099\(20\)30200-0/fulltext](https://www.thelancet.com/journals/laninf/article/PIIS1473-3099(20)30200-0/fulltext)
10. Cao B et al. A trial of lopinavir-ritonavir in adults hospitalized with severe Covid-19. *NEJM*. DOI: 10.1056/NEJMoa2001282. (18 March 2020).
<https://www.nejm.org/doi/full/10.1056/NEJMoa2001282>
11. Deng L et al. Arbidol combined with LPV/r versus LPV/r alone against Corona Virus Disease 2019: A retrospective cohort study. *Journal of Infections*. doi: 10.1016/j.jinf.2020.03.002. (11 Mar 2020).
<https://www.ncbi.nlm.nih.gov/pubmed/32171872>

12. Li Y et al. An exploratory randomized, controlled study on the efficacy and safety of lopinavir/ritonavir or arbidol treating adult patients hospitalized with mild/moderate COVID-19 (ELACOI). *MedRxiv*. 23 March 2020.
<https://www.medrxiv.org/content/10.1101/2020.03.19.20038984v1>
13. Reuters Health News. UK begins trial of HIV medicine, steroid as possible COVID-19 treatments (23 March 2020).
<https://www.reuters.com/article/us-health-coronavirus-britain-tests/uk-begins-trial-of-hiv-medicine-steroid-as-possible-covid-19-treatments-idUSKBN21A2JO>
14. Johnson and Johnson press release. Lack of evidence to support use of darunavir-based treatments for SARS-CoV-2.
<https://www.jnj.com/lack-of-evidence-to-support-darunavir-based-hiv-treatments-for-coronavirus>
15. Gautret P et al. Hydroxychloroquine and azithromycin as a treatment of COVID-19: results of an open-label non-randomized clinical trial. *International Journal of Antimicrobial Agents*. DOI: 10.1016/j.ijantimicag.2020.105949 (20 March 2020).
<https://www.sciencedirect.com/science/article/pii/S0924857920300996>
16. Pillar C. 'This is insane!' Many scientists lament Trump's embrace of risky malaria drugs for coronavirus. *Science*. (26 March 2020).
<https://www.sciencemag.org/news/2020/03/insane-many-scientists-lament-trump-s-embrace-risky-malaria-drugs-coronavirus>
17. Arizona man dies after attempting to take Trump coronavirus 'cure', *The Guardian*. (24 March 2020).
<https://www.theguardian.com/world/2020/mar/24/coronavirus-cure-kills-man-after-trump-touts-chloroquine-phosphate>
18. Touret F and de Lamballerie X. Of chloroquine and COVID-19. *Antiviral Research*. Commentary. Volume 177, May 2020,
<https://www.sciencedirect.com/science/article/pii/S0166354220301145>
19. Highleyman L. Can Chloroquine Prevent or Cure COVID-19? *POZ magazine*. (23 March 2020).
<https://www.poz.com/article/can-chloroquine-prevent-cure-covid19?>
20. Escobar ZK. Chloroquine and hydroxychloroquine. *The Society of Infectious Diseases Pharmacists*. YouTube talk. (20 March 2020).
https://www.youtube.com/watch?v=an4WZv_spT4
21. Bian H et al. Mepolizumab treats COVID-19 pneumonia: an open-labelled, concurrent controlled add-on clinical trial.
doi: 10.1101/2020.03.21.20040691
<https://www.medrxiv.org/content/10.1101/2020.03.21.20040691v1>
22. Chen C et al Treatment of 5 Critically Ill Patients With COVID-19 With Convalescent Plasma. *JAMA*. doi:10.1001/jama.2020.4783. (27 March 2020).
<https://jamanetwork.com/journals/jama/fullarticle/2763983>
23. Robuck JD and Guarner J. Convalescent plasma to treat COVID-19: Possibilities and Challenges. *JAMA Editorial*. doi:10.1001/jama.2020.4940. (27 March 2020).
<https://jamanetwork.com/journals/jama/fullarticle/2763982>
24. Casadevall A and Pirofski L-A. The convalescent sera option for containing COVID-19. *JCI*. DOI: 10.1172/JCI138003. (13 March 2020).
<https://www.jci.org/articles/view/138003>

COVID-19: TRANSMISSION

Aerosol and surface stability of SARS-CoV-2 as compared with SARS-CoV-1

Simon Collins, HIV i-Base

This study from the US NIAID – published as a letter to the NEJM – is now widely referenced for infectiousness of CoV-2 on different surfaces.



It compared the new coronavirus (CoV-2) with the first SARS virus in five environmental conditions (aerosols, plastic, stainless steel, copper, and cardboard). Both viruses had similar results, remaining infectious on all surfaces for 72 hours and for longer on stainless steel and plastic than on copper or cardboard.

However, the degree of infectiousness measured as tissue-culture infectiousness dose (TCID) dramatically dropped over this time, for example (from approximately 5000 to 5 TCID/mL) after 48 hours on stainless steel.

Ref: van Doremalen N et al. Aerosol and surface stability of SARS-CoV-2 as compared with SARS-CoV-1. *NEJM*. Letter to editor. DOI: 10.1056/NEJMc2004973 (17 March 2020)

<https://www.nejm.org/doi/full/10.1056/NEJMc2004973>

Median estimated incubation period of COVID-19 is five days – but can be two weeks

Simon Collins, HIV i-Base

This is a pooled analysis on likely times from exposure to showing symptoms from 181 confirmed cases.



It supports the average expected time to symptoms as being about five days and safety after two weeks without contact to other people.

However, as with all averages, the spread (or range) of all results is just as important. This study showed that symptoms are unlikely to occur much earlier but that in rare cases they might take more than two weeks to develop.

In this analysis, the median incubation period was estimated to be 5.1 days (95% CI, 4.5 to 5.8 days), and 97.5% of those who develop symptoms will do so within 11.5 days (CI, 8.2 to 15.6 days) of infection.

Ref: Lauer SA et al. The incubation period of coronavirus disease 2019 (COVID-19) from publicly reported confirmed cases: estimation and application, *Annals Internal Medicine*. (10 March 2020).

<https://annals.org/aim/fullarticle/2762808/incubation-period-coronavirus-disease-2019-covid-19-from-publicly-reported>

Clinical outcomes of adult inpatients with COVID-19

Simon Collins, HIV i-Base

This retrospective case study reported clinical outcomes and related risks of 191 patients in two hospitals in Wuhan, of whom 137 were discharged and 54 died in hospital.



These were people who were sick enough to be hospitalised. Baseline risks associated with dying in hospital included older age and serious comorbidities and also having d-dimer >1 µg/mL (OR: 18.42; 95%CI 2.64–128.55; p=0.0033).

It also reported that median duration of viral shedding was 20 days (IQR: 17 to 24) in survivors, but SARS-CoV-2 was detectable until death in non-survivors. The longest observed duration of viral shedding in survivors was 37 days.

Ref: Zhou F et al. Clinical course and risk factors for mortality of adult inpatients with COVID-19 in Wuhan, China: a retrospective cohort study. *The Lancet*, 395(10229):1054-1062. (28 March 2020).

[https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(20\)30566-3/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(20)30566-3/fulltext)

COVID-19: EPIDEMIOLOGY

Selected epidemiology links and papers for COVID-19

Simon Collins, HIV i-Base

The links in this short section are not really epidemiology papers, hundreds of which will soon be published, but will hopefully still be of interest.



It is notable, that similar to responses to HIV, there is already a need for a website to counter conspiracy theories.

Online updated figures by country

Epidemiology data by country, including cases, graphs, mortality, incubation, age - updated in real time, plus other useful related resources.

<https://www.worldometers.info/coronavirus/>

Characteristics and timeline of COVID-19 in China: summary of >72,000 cases

Summary of main epidemiology data from China that includes timeline from first reported case in November 2019 and main risk factors.

Ref: Characteristics of and important lessons from the coronavirus disease 2019 (COVID-19) outbreak in China: summary of a report of 72,314 cases from the Chinese Center for Disease Control and Prevention. *JAMA*. (20 February 2020).

<https://jamanetwork.com/journals/jama/fullarticle/2762130>

Public health responses to COVID-19 outbreaks on cruise ships

CDC MMWR describes in detail risk from three cruise ships that included more than 800 cases of laboratory-confirmed COVID-19 cases, and public health implications.

Ref: Public health responses to COVID-19 outbreaks on cruise ships — worldwide, February–March 2020. *CDC MMWR*. / 69(12);347-352. (26 March 2020).

https://www.cdc.gov/mmwr/volumes/69/wr/mm6912e3.htm?s_cid=mm6912e3_w

Genomic study points to natural origin of COVID-19

US NIH director Francis Collins reviews a paper from the journal *Nature Medicine* that provides scientific evidence that this novel coronavirus arose naturally.

Ref: Collins F. Genomic study points to natural origin of COVID-19. *Directors blog*. 26 March 2020.

<https://directorsblog.nih.gov/2020/03/26/genomic-research-points-to-natural-origin-of-covid-19>

COVID-19 denialism: differentiating real news from rumours

US website to help the general public distinguish between rumours and facts regarding the response to coronavirus (COVID-19) pandemic.

Ref: FEMA. Coronavirus Rumor Control.

<https://www.fema.gov/coronavirus-rumor-control>

COVID-19: PATHOGENESIS

Clinical characteristics of COVID-19 in China

Simon Collins, HIV i-Base

This study describes the clinical characteristics of COVID-19 in the first two months of the outbreak in China, in a selected cohort of 1099 laboratory confirmed cases from 552 hospitals in 30 provinces.



Data was based on hospitalised cases reported between 11 December 2019 and 29 January 2020, based on WHO interim criteria.

The median age was 47 years and approximately 40% were women. Of these, 5.0% were admitted to the ICU, 2.3% underwent invasive mechanical ventilation, and 1.4% died.

Ref: Guan W et al. Clinical Characteristics of Coronavirus Disease 2019 in China. NEJM DOI: [10.1056/NEJMoa2002032](https://doi.org/10.1056/NEJMoa2002032). (28 February 2020).

<https://www.nejm.org/doi/full/10.1056/NEJMoa2002032>

COVID-19 is associated with significant drops in CD4 count

Simon Collins, HIV i-Base

The paper describes lab results including peripheral lymphocyte subsets in 452 people with COVID-19 in China, 286 of them had severe disease. Median age was 58 with roughly half men and half women.



The abstract reports the most common symptoms were fever, shortness of breath, expectoration, fatigue, dry cough and myalgia. Severe cases tended to have lower lymphocytes counts, higher leukocytes counts and neutrophil-lymphocyte-ratio (NLR), and lower percentages of monocytes, eosinophils, and basophils.

Severe cases also had higher infection-related biomarkers and inflammatory cytokines.

Ref: Qin C et al. Dysregulation of immune response in patients with COVID-19 in Wuhan, China. Clinical Infectious Diseases, ciaa248. (12 March 2020). DOI: [10.1093/cid/ciaa248](https://doi.org/10.1093/cid/ciaa248)

<https://academic.oup.com/cid/advance-article/doi/10.1093/cid/ciaa248/5803306>

CoV-2 viral load in throat saliva samples correlates with clinical outcomes from COVID-19

Simon Collins, HIV i-Base

This longitudinal observational cohort study describes coronavirus viral load in saliva throat samples in 23 people diagnosed with laboratory confirmed cases of COVID-19 in Hong Kong.



Higher viral load was associated with more symptoms, slower recover and poorer outcomes.

“The median viral load in posterior oropharyngeal saliva or other respiratory specimens at presentation was 5.2 log₁₀ copies per mL (IQR 4.1–7.0). Salivary viral load was highest during the first week after symptom onset and subsequently declined with time (slope –0.15, 95% CI –0.19 to –0.11; $R^2=0.71$). In one patient, viral RNA was detected 25 days after symptom onset.”

Ref: To KK-W et al. Temporal profiles of viral load in posterior oropharyngeal saliva samples and serum antibody responses during infection by SARS-CoV-2: an observational cohort study. *Lancet Infectious Disease*. DOI: 10.1016/S1473-3099(20)30196-1. (23 March 2020).

[https://www.thelancet.com/journals/laninf/article/PIIS1473-3099\(20\)30196-1/fulltext](https://www.thelancet.com/journals/laninf/article/PIIS1473-3099(20)30196-1/fulltext)

COVID-19: DIAGNOSTICS

Rapid and point of care testing for SARS-CoV-2

Simon Collins, HIV i-Base

Testing for SARS-CoV-2 in most countries continues to be controversial with delayed and limited access to PCR tests.

In the UK, many NHS labs are now prioritising coronavirus over other routine services, for example, CD4 and viral load will be less frequent in HIV clinics and HIV and STI testing in PrEP services will be limited to people who are symptomatic.

The articles linked here include a review of diagnostic research report and two rapid tests recently approved by the US FDA.

Fast, portable tests come online to curb coronavirus pandemic

Review of different technologies used to diagnose CoV-2 and including development of rapid and point of care testing.

Ref: Sheridan C, Fast, portable tests come online to curb coronavirus pandemic. *Nature Biotechnology* (23 March 2020).

<https://www.nature.com/articles/d41587-020-00010-2?>

FDA approves 45-minute coronavirus test from Cepheid

First FDA approval of new rapid test for coronavirus.

Ref: Cepheid PR. Xpert Xpress SARS-CoV-2 has received FDA Emergency Use Authorization. (21 March 2020).

<http://cepheid.mediaroom.com>

FDA approves 15-minute coronavirus test from Abbott

FDA approval of point of care test manufactured by Abbott Laboratories that provides results within 15 minutes. The press release from Abbott includes that positive results can show within five minutes and negative results within eight minutes.

Ref: Abbott PR. Abbott launches molecular point-of-care test to detect novel coronavirus in as little as five minutes. (27 March 2020).

<https://abbott.mediaroom.com>

<https://www.abbott.com/corpnnewsroom/product-and-innovation/detect-covid-19-in-as-little-as-5-minutes.html>

COVID-19: UPCOMING STUDIES

Ongoing and planned COVID-19 studies

Simon Collins, HIV i-Base

The best way to track research into CoV-2 and COVID-19 is to search the listing on registries for clinical trials.

Almost 200 studies are already listed on the main US clinical trials registry, many of them already recruiting. [1]

Four studies are also listed on the WHO ISRCTN registry. [2]

AVAC have also compiled a table of 34 selected studies looking at treatment and prevention, including vaccines, that is available as a PDF document. [3]

References

1. Clinicaltrials.gov.
<https://clinicaltrials.gov/ct2/results?cond=&term=covid-19>
2. ISRCTN registry.
<https://www.isrctn.com/search?q=COVID-19>
3. AVAC. Ongoing Studies for 2019-nCoV Prevention and Treatment. (March 2020)
<https://www.avac.org/resource/ongoing-studies-2019-ncov-prevention-and-treatment> (webpage)
https://www.avac.org/sites/default/files/resource-files/AVAC_nCoV-pipeline_27Mar2020.pdf (PDF download)

NEAT ID develop COVID-19 and HIV coinfection data dashboard

NEAT ID press release

The NEAT ID Foundation has developed a simple database dashboard to monitor the progress of COVID-19 in HIV positive people across Europe for researchers to contribute to.

The dashboard will show at European and Country level the number of cases reported to NEAT ID with COVID-19 co-infection with HIV, the number of hospitalisations and the number of deaths. The data will be available for public viewing (www.NEAT-ID.org) and as a summary on the Dashboard. Individual clinic data will only be seen by the submitting site and will be password and security protected.

The database will be real-time and updated on a weekly basis. Data can also be added retrospectively for previous weeks.

To take part and register, please email Your Name, Email, Site Name, City, and Country to:

neat-id@neat-id.org

Individual site login details will be sent within 24 hours.

NEAT ID are also developing a protocol for a clinical study looking at the outcomes, therapies used, and other essential data relating to the progress of COVID-19 in HIV positive patients.

COVID-19: OPEN-ACCESS PUBLICATIONS

Open access publications on COVID-19 include Lancet, Nature, NEJM, JAMA, JID, CID and others

Simon Collins, HIV i-Base

Over the last three months, hundreds of papers on all aspects of COVID-19 have been published, with most leading journals allowing open access to this research.



It is a very helpful example that the COVID-19 pandemic is of such global importance that many leading medical journals are making most or all of these key papers available as open access.

Links to selected journals are below.

Lancet journals

<https://www.thelancet.com>

A search on the Lancet journals in the title of papers or articles in the last three months included more than 250 with COVID-19 in the title and a similar number when searching for coronavirus (many of these may be the same papers).

https://www.thelancet.com/coronavirus?dgcid=kr_pop-up_tlicoronavirus20

Nature journals

<https://www.nature.com/search?q=covid-19&page=3>

The Nature website includes more than 130 publications reports and letters, compiled from a range of publications which also seem open access.

NEJM

<https://www.nejm.org/coronavirus>

Home pages for more than 40 papers, editorials and correspondence relating to CoV-2, including many reporting data from China.

JAMA network

<https://jamanetwork.com/collections/46099/coronavirus-covid19>

The JAMA network of medical journals already includes 130 papers and related articles.

Oxford academic journals: including JID, CID, IDSA and HIV medicine association journals

<https://academic.oup.com>

The publishers of Journal of Infectious Diseases (JID) and Clinical Infections Diseases (CID) have more than 180 papers related COVID-19 which also appear to be open access.

Open access publishing on US PubMed Central

On 25 March 2020, the US National Library of Medicine (NLM) announced it would be rapidly including research relating to COVID-19 and called for open access to important papers as part of the emergency response to the pandemic.

PMC currently provides access to nearly 6 million full-text journal articles and a search for COVID-19 produces more than 1800 results. [2]

References

1. NLM. The National Library of Medicine expands access to coronavirus literature through PubMed Central. (25 March 2020).
<https://www.nih.gov/news-events/news-releases/national-library-medicine-expands-access-coronavirus-literature-through-pubmed-central>
2. Search for COVID-19.
<https://www.nlm.nih.gov>

Selected articles by UCSF: download 60 papers

As we went to press this download link became available the download a compressed zip file (760 MB) that expands to more than 60 papers.

These cover epidemiology, immunology, radiology, PPE and occupational health, paediatrics, ethics and other studies, some of which are also included in this HTB review.

It also includes hospital protocols for managing COVID-19

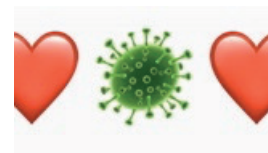
<https://mega.nz/#!QhZsBLL1IHHEp1ImvZyNZqkhdTjfCZGgldO0j6copIF-4MUMc>

COVID-19: PREGNANCY

Peer-review articles on COVID-19 and pregnancy

Simon Collins, HIV i-Base

The concerns about COVID-19 and pregnancy are included in US HIV treatment guidelines (with useful links) and in the most recent BHIVA statement.



Selected links are included to four papers below.

Perinatal transmission of COVID-19 associated SARS-CoV-2: should we worry?

Fan C et al. Perinatal Transmission of COVID-19 Associated SARS-CoV-2: Should We Worry? *Clinical Infectious Diseases*, ciaa226. <https://doi.org/10.1093/cid/ciaa226>. (17 March 2020).

<https://academic.oup.com/cid/advance-article/doi/10.1093/cid/ciaa226/5809260>

Possible vertical transmission of SARS-CoV-2 from an infected mother to her newborn

This case report describes birth of an infant with elevated anti-SARS-CoV-2 IgM antibodies and cytokine levels to a mother with PCR-confirmed coronavirus disease 2019 (COVID-19) despite no physical contact.

Ref: Dong L et al. Possible Vertical Transmission of SARS-CoV-2 From an Infected Mother to Her Newborn. *Research letter. JAMA*. doi:10.1001/jama.2020.4621. (26 March 2020).

<https://jamanetwork.com/journals/jama/fullarticle/2763853>

Antibodies in infants born to mothers with COVID-19 pneumonia

This study measured antibodies from infant throat swabs and sera samples.

Ref: Zeng H et al. Antibodies in infants born to mothers with COVID-19 pneumonia. *Research Letter. JAMA*. doi:10.1001/jama.2020.4861. (26 March 2020).

<https://jamanetwork.com/journals/jama/fullarticle/2763854>

Can SARS-CoV-2 infection be acquired in utero? More definitive evidence is needed

JAMA Editorial.

Ref: Can SARS-CoV-2 infection be acquired in utero? More definitive evidence is needed. *JAMA. Editorial*. (26 March 2020).

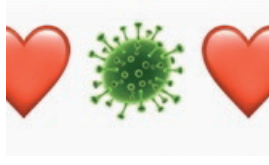
<https://jamanetwork.com/journals/jama/fullarticle/2763851>

COVID-19: SEX, HIV and STIs

Sex, HIV and STIs during COVID-19 pandemic

Simon Collins, HIV i-Base

HTB is focused on HIV and PrEP and also on sexual health in general. However, CoV-2 will affect everyone as an infection that can be spread during physical sex, at least if this involves being within six feet of your partners.



This will disproportionately affect people who do not have current sexual partners that they live with, people who are used to meeting partners online, in anonymous setting or on social media, and people whose job involves physical contact.

Many social media apps and HIV organisations are actively saying that the threat from CoV-2 outweighs the personal need for sexual contact.

The most effective information so far has been sex-positive – recognising the importance of sex for many people. For social contact, human contact and good mental, emotional and psychological health.

The next few months are also likely to further strain sexual health services as health workers and labs are reassigned to cover the response to COVID-19. Many clinics are already expecting to limit STI testing to people with symptoms.

This link to information provided by health services in New York City is especially good - and is being adapted for use in the UK. Further links will be added to this page.

Sex and COVID-19 (New York City)

<https://www1.nyc.gov/assets/doh/downloads/pdf/imm/covid-sex-guidance.pdf> (PDF)

This information (online as a PDF file) includes positive information about how to manage a safer approach to sex during the coronavirus health crisis. It covers the safety of sex with yourself and of virtual sex including if your job currently includes sex work.

COVID-19: ON THE WEB

Online resources on COVID-19 for people living with HIV

Simon Collins, HIV i-Base

Many organisations now have online information to answer the main questions in easy language. A selection is linked below and include some posts from the i-Base Q&A service.

As with all information please check the date and whether or not the resources are updated in real time.

- Are HIV positive people at greater risk: evolving statements and guidelines?
- i-Base Q&A service
- HIV Scotland: HIV, PrEP, COVID-19, sex: what you need to know
- ITPC - Q&As for HIV positive people globally
- BHIVA: Eight questions for HIV positive people
- US Centre for Disease Controls (CDC) FAQ
- International AIDS Society (IAS): COVID-19 and HIV: What you need to know
- JAMA: Stopping the spread of COVID-19

Are HIV positive people at greater risk: evolving statements and guidelines?

Simon Collins, HIV i-Base

One of the first questions that came to the i-Base Q&A service on COVID-19 was whether or not CoV-2 would be an increased risk for HIV positive people.

This involved two issues. Firstly, whether HIV positive people are at a higher risk of catching CoV-2. Secondly, whether being HIV positive has a higher risk of worse outcomes.

The first answer, posted on 27 February has been modified and updated eight times as HIV and public health organisations steadily arrived at consensus. These guidelines are all still based on limited direct evidence from HIV positive people - and are therefore likely to be further updated in the future.

The links below are to statements from BHIVA, EACS, WHO, Public Health England (PHE) and the US CDC and HHS guidelines.

More importantly, guidelines now recognise that HIV positive people are not an homogenous group. The answer is different depending on current CD4 count, viral load and use of ART. The is in addition to the risk factors for the general population that are common among HIV positive people: older age, higher smoking rates, and serious comorbidities *lung, heart, liver and kidney disease, and some cancers).

Current summary

The current summary in both BHIVA and US guidelines use three categories of risk based on CD4 count.

1. CD4 <50 cells/mm³. Highest risk. In the UK this is now categorised as being “extremely vulnerable” and requiring 12 week of self-isolation. People helping should also follow strict infection control.
2. CD4 50 to 200 cells/mm³. Serious risk. Important to strict follow guidelines for general population and to minimize risk in any situation.
3. CD4 > 200 cells/mm³. Similar to general population in >200 - but only in the context of being on ART with undetectable viral load. Even with a high CD4 count, not being on ART or having detectable viral load on ART, is seen as similar risk to have a CD4 count of 50 to 200 cells/mm³ on effective ART.

Also, over the time of these discussions, the risk to the general population has increased to the degree that physical isolation is a universal recommendation, together with hygienic measures of infection control.

i-Base Q&A service

The following questions are answered online and updated as needed as new data or guidelines recommend.

HIV and coronavirus (COVID-19): are HIV positive people at higher risk?

<http://i-base.info/qa/15483>

Will PrEP be affected by coronavirus and COVID-19?

<http://i-base.info/qa/15552>

What is difference between self-distancing and self-isolation for HIV and COVID-19

<http://i-base.info/qa/15578>

What are guidelines for pneumococcal and flu vaccines during COVID-19 crisis?

<http://i-base.info/qa/15545>

HIV Scotland: HIV, PrEP, COVID-19, sex: what you need to know

The online information from HIV Scotland has good Q&As organised into four main areas. i-Base contributed to some of these.

<https://www.hiv.scot/coronavirus>

HIV & coronavirus - what you need to know

<https://www.hiv.scot/Pages/FAQs/Category/hiv-coronavirus>

PrEP & coronavirus - what you need to know

<https://www.hiv.scot/Pages/FAQs/Category/prep-coronavirus>

Sex & physical distancing - what you need to know

<https://www.hiv.scot/Pages/FAQs/Category/sex-covid-19-physical-distancing>

Been at risk of HIV during COVID-19? - what you need to know

<https://www.hiv.scot/Pages/FAQs/Category/at-risk-of-hiv-during-covid-19>

ITPC - Q&As for HIV positive people globally

Information available in a PDF booklet from the International Treatment Preparedness Coalition (ITPC)

Among the questions addressed are:

- What is the coronavirus and what is COVID-19?
- Who is at risk for COVID-19?
- How do you get it?
- What happens to people with COVID-19?
- How can it be prevented?
- What do you do if you feel ill?
- How do you get tested?
- How is COVID-19 treated?

Ref: ITPC. Personal and community guidance on COVID-19.

<http://itpcglobal.org/resource/personal-and-community-guidance-coronavirus-disease-covid-19/>

BHIVA: Eight questions for HIV positive people

The BHIVA Q&As include importance of continuing to take ART, looking after physical and mental well-being, and advice about access to care if you think you have coronavirus symptoms.

<https://www.bhiva.org/coronavirus-and-HIV-responses-to-common-questions-from-BHIVA>

US Centre for Disease Controls (CDC) FAQ

Information from the US CDC from 20 March 2020.

Introduction

<https://www.hiv.gov/blog/frequently-asked-questions-about-hiv-and-covid-19?>

FAQ page

<https://www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/hiv.html?>

International AIDS Society (IAS): COVID-19 and HIV: What you need to know

<https://www.iasociety.org/covid-19-hiv>

JAMA: Stopping the spread of COVID-19

Information from JAMA that includes a graphic to explain importance of hand-washing and covering coughs and sneezes.

Ref: Desai AN and Patel P. Stopping the Spread of COVID-19. JAMA. (20 March 2020).

<https://jamanetwork.com/journals/jama/fullarticle/2763533?>

Online talks and webinars to learn about COVID-19

Simon Collins, HIV i-Base

There are already many excellent overviews that review current knowledge about COVID-19.

All are available as free to access webcasts.

The Economics of a Pandemic: the case of Covid-19

Paolo Surico and Andrea Galeotti

<https://icsb.org/theeconomicsofapandemic>

Two professors of Economics at London Business School analyse the COVID-19 pandemic by breaking it down into four parts: 1. Science 2. Health Policies 3. Economics 4. Macroeconomic policies.

This includes data (mainly from Korea) that reports most higher infection rates in 20-40 year olds, one-third of which are asymptomatic.

The quest for the coronavirus vaccine

Seth Berkley, Epidemiologist and head of GAVI, the vaccine alliance, reviews the challenges and likely timeline for a coronavirus vaccine - and why this might be easier than the challenge for HIV.

<https://www.facebook.com/TED/videos/1716225505187129>

ACTG community advisory board: COVID-19 webinar

Comprehensive community review of current knowledge presented by Rachel Bender Ignacio for the Community Advisory Board of the AIDS Clinical Trials Group.

The slides are also available to download.

<https://youtu.be/eYS51cJvgqU> (webcast)

<https://bit.ly/3bnvGZi> (slides)

HIV advocates update on COVID-19 - AVAC webinar

<https://www.avac.org/event/hiv-advocates-update-covid-19>

How to navigate the coronavirus infodemic

Excellent overview on COVID-19 by long-term US HIV activist Nelson Vergel.

<https://www.youtube.com/watch?v=Wdsd5UFC7w8&feature=em-lsp> (webcast)

https://drive.google.com/file/d/1rCwosWU3_Xaa32h5B7VLNzjx52BXT1NX/view?usp=drivesdk (slides)

LSHTM learning course on COVID-19

A free online course to learn about COVID-19 developed by the London School of Hygiene and Tropical Medicine

<https://www.futurelearn.com/courses/covid19-novel-coronavirus>

IAS COVID-19 AND HIV webinars

The IAS is organising a series of webinars to discuss the pandemic and its impact on people living with HIV. Questions can be sent in advance as part of online registration.

https://iasociety.zoom.us/webinar/register/WN_jTThLSkIQVeR9FreQWhwgQ

The first webinar of this series, COVID-19 and HIV: What you need to know, will take place on 3 April 2020 (9:00 – 10:30 Zurich time, CEST). It will include discussions on:

- Latest WHO guidelines on COVID-19 and HIV
- Global health systems preparedness
- Frontline lessons learned and measures implemented for people living with HIV

DRUG INTERACTIONS

Drug-drug interactions and COVID-19

Simon Collins, HIV i-Base

The Drug-Drug Interaction (DDI) services at Liverpool University have put together a summary of likely drug interactions with experimental COVID therapies.

Remdesivir is also completed but awaiting authorisation to use proprietary data.

Continued updates will be posted when available.

Reference

<http://www.covid19-druginteractions.org>

COVID-19: RESCHEDULED MEETINGS

The following listing covers selected upcoming HIV-related meetings and workshops. Registration details, including for community and community press are included on the relevant websites.

Due to the new coronavirus health crisis, most meetings are either being cancelled or rescheduled (ie BHIVA, INTEREST, IAS AIDS 2020 and PK workshop).

Community Reclaiming the Global Response (HIV 2020)

CANCELLED (was 5 – 7 July 2020, Mexico City)

<https://www.hiv2020.org/registration>

23rd International AIDS Conference (AIDS 2020)

6 – 10 July 2020 (NOW VIRTUAL ONLY)

www.aids2020.org

23rd International Workshop on Co-morbidities and Adverse Drug Reactions in HIV (2020)

12 – 13 September 2020, New York

<https://www.intmedpress.com/comorbidities/default.cfm?itemtypeid=1&title=The%20Workshop>

21st International Workshop on Clinical Pharmacology of HIV, hepatitis, and other antiviral drugs

28 – 30 September, New York (rescheduled from May)

www.virology-education.com

11th International Workshop on HIV & Ageing (2020)

1 – 2 October 2020, NYC

<https://www.virology-education.com>

HIV Glasgow Congress 2020

4 – 7 October 2020, Glasgow (expects to continue)

www.hivglasgow.org

HIV Research for Prevention (HIV R4P 2020)

11 – 15 October 2020, Cape Town

<https://www.hivr4p.org>

26th Annual BHIVA Conference (BHIVA 2020)

22–24 November 2020, Harrogate (rescheduled from April)

www.bhiva.org

International Conference on HIV Treatment, Pathogenesis, and Prevention Research in Resource-Limited Settings (INTEREST) 2020

1 – 4th December, Windhoek, Namibia (rescheduled from May)

<https://virology.eventsair.com/interest-2020/registration/Site/Register>

PUBLICATIONS & SERVICES FROM i-BASE

i-Base website

All i-Base publications are available online, including editions of the treatment guides.

<http://www.i-base.info>

The site gives details about services including the UK Community Advisory Board (UK-CAB), our phone service and Q&A service, access to our archives and an extensive range of translated resources and links.

Publications and regular subscriptions can be ordered online.

The Q&A web pages enable people to ask questions about their own treatment:

<http://www.i-base.info/qa>

i-Base treatment guides

i-Base produces six booklets that comprehensively cover important aspects of treatment. Each guide is written in clear non-technical language. All guides are free to order individually or in bulk for use in clinics and are available online in web-page and PDF format.

<http://www.i-base.info/guides>

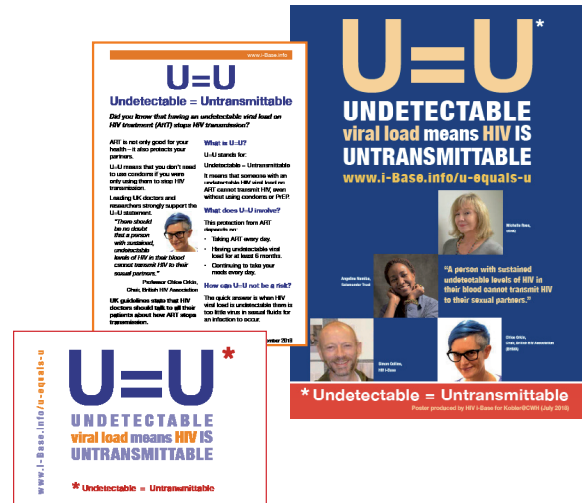
- Introduction to ART (October 2019)
- PrEP in the UK (November 2019)
- HIV testing and risks of sexual transmission (November 2019)
- Guide to HIV, pregnancy & women's health (April 2019)
- Guide to changing treatment and drug resistance (Jan 2018)
- HIV & quality of life: side effects & long-term health (Sept 2016)

Pocket guides

A series of pocket-size concertina folding leaflets that is designed to be a very simple and direct introduction to HIV treatment.

The five pocket leaflets are: Introduction to ART, HIV and pregnancy, ART and quality of life, UK guide to PrEP and HCV/HIV coinfection.

The leaflets use simple statements and quotes about ART, with short URL links to web pages that have additional information in a similar easy format.



U=U resources for UK clinics: free posters, postcards and factsheets

i-Base have produced a new series of posters, postcards and leaflets to help raise awareness about U=U in clinics.

This project was developed with the Kobler Centre in London.

As with all i-Base material, these resources are all free to UK clinics.

Until our online order form is updated to include the U=U resources, more copies can be ordered by email or fax.

email: subscriptions@i-base.org.uk

Fax: 0208 616 1250

Other i-Base resources can still be ordered online as usual.

<http://i-base.info/forms/order.php>

Customise U=U posters for your clinic

i-Base can customise U=U posters to include pictures of doctors, nurses, pharmacists, peer advocates or any other staff that would like to help publicise U=U.

Personalising these for your clinic is cheap and easy and might be an especially nice way to highlight the good news.

For further information please contact Roy Trelvelon at i-Base:

roy.trelvelon@i-base.org.uk

Order publications and subscribe online

All publications can be ordered online for individual or bulk copies. All publications are free. Unfortunately bulk orders are only available free in the UK.

<http://i-base.info/order>



Orders and subscriptions

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• **HIV Treatment Bulletin (HTB) every two weeks** **by e-mail**

• **Pocket leaflets** - *A7 small concertina-folded leaflets (2017)*

Pocket HCV coinfection	quantity _____	Pocket PrEP	quantity _____
Pocket ART	quantity _____	Pocket pregnancy	quantity _____
Pocket side effects	quantity _____	PrEP for women	quantity _____

• **Booklets about HIV treatment**

NEW: Guide to HIV testing and risks of sexual transmission (*Jan 2020*): 32-page A5 booklet **quantity** _____

NEW: Introduction to ART (*October 2019*): 48-page A5 booklet **quantity** _____

NEW: UK Guide To PrEP (*November 2019*): 24-page A5 booklet **quantity** _____

ART in pictures: HIV treatment explained (*June 2019*): 32-page A4 booklet **quantity** _____

Guide to HIV, pregnancy and women's health (*April 2019*): 36-page A5 booklet **quantity** _____

Guide to changing treatment: what if viral load rebounds (*Jan 2018*): 24-page A5 booklet **quantity** _____

HIV and quality of life: guide to side effects and long-term health (*Sept 2016*): 96-page A5 **quantity** _____

Guide to hepatitis C coinfection (*April 2017*): 52-page A5 booklet **quantity** _____

• **Other resources**

U=U resources:

A3 posters **quantity** _____ **A5 leaflets** **quantity** _____ **A6 postcards** **quantity** _____

HIV Treatment 'Passports' - Booklets for patients to record their own medical history **quantity** _____

Phoneline posters (A4) **quantity** _____

Please post to the above address, or email a request to HIV i-Base:

subscriptions@i-Base.org.uk