COVID-19 & HIV

So far there is no evidence for a higher COVID-19 infection rate or different disease course in people living with HIV (PLWH) than in HIV-negative people. Current evidence indicates that the risk of severe illness increases with age, male sex and with certain chronic medical problems such as cardiovascular disease, chronic lung disease and diabetes. Although people living with HIV who are on treatment with a normal CD4 T-cell count and suppressed viral load may not be at an increased risk of serious illness, many people living with HIV have other conditions that increase their risk. Indeed, almost half of people living with HIV in Europe are older than 50 years and chronic medical problems, such as cardiovascular and chronic lung disease, are more common in people living with HIV. It has to be assumed that immune suppression, indicated by a low CD4 T-cell count (<200/µl), or not receiving antiretroviral treatment, will also be associated with an increased risk for a more severe disease presentation. For patients with low CD4-counts (<200/ml), or who experience a CD4-decline during a COVID-19 infection, remember to initiate opportunistic infection (OI) prophylaxis. More information regarding recommendations for prophylaxis and treatment of specific opportunistic infections can be found in the BHIVA and EACS guidelines for the treatment of HIV/AIDS. Smoking is a risk factor for respiratory infections; smoking cessation should therefore be encouraged for all patients. Influenza and pneumococcal vaccinations should be kept up to date.

First reports from China suggest a growing evidence for potential COVID-19 vertical transmission [1]. So far clinical outcome of the newborn however, has been very good.

Existing national guidelines should be followed in terms of reducing risk and managing symptoms; examples are listed below [2-4].

COVID-19 treatment: antiretrovirals & further options

Expedited research and publication are welcomed with the caveat that results may be disseminated pre-publication and/or published without usual peer review. There is ongoing discussion and research around some HIV antiretrovirals which may have some activity against COVID-19. The first randomised clinical trial with lopinavir/ritonavir demonstrated no benefit over standard care in 199 hospitalised adults with severe COVID-19 [5]. There is no evidence to support the use of other antiretrovirals, including protease inhibitors; indeed, structural analysis demonstrates no darunavir binding to COVID-19 protease. A recent case series on hydroxychloroquine, with or without azithromycin, was not able to demonstrate a clear clinical benefit, despite in vitro inhibition of SARS-CoV-2, due to methodological issues [6]; although the same group has postulated an infection control benefit of more rapid viral clearance there was a lack of control arm for comparison [7]. One small RCT demonstrated trends for reduced time to clinical recovery and short-term radiological improvement for hydroxychloroquine [8], though another showed no benefit in terms of viral clearance, clinical or radiological endpoints [9]. Despite lack of evidence, indeed no acute viral infection has ever been successfully treated with either product [10], the FDA has issued an Emergency Use Authorisation to allow hydroxychloroquine and chloroquine products to be used for certain hospitalised patients with COVID-19 [11] while awaiting results from randomised trials. A further potential drug candidate for treatment of COVID19 is remdesivir which was originally developed for Ebola therapy. Remdesivir has broad in vitro antiviral activity against SARS-CoV-2 [12]. First cases where COVID19 patients were treated with remdesivir suggest potential clinical benefit. The results from ongoing clinical trials are eagerly awaited.

Currently no evidence is available to justify switching a patient from their usual antiretroviral therapy. Additionally there is no evidence to support HIV-negative people taking antiretrovirals outside the context of pre-exposure prophylaxis (PrEP) to prevent HIV acquisition - PrEP should be taken as directed and there is no current evidence that PrEP is effective against COVID-19.

COVID-19 data collection & resources

A COVID-19 drug interactions website (www.covid19-druginteractions.org) has been developed for the experimental drugs being trialed to treat COVID-19 in different parts of the world. EACS and BHIVA are happy to announce that they have agreed to financially support this very useful website.
We would like to highlight two resources for reporting COVID-19 cases:

- The NEAT ID Foundation has developed a ‘data dashboard’ to monitor COVID-19 case numbers, hospitalisations and mortality in people living with HIV at European and country level. The data will be available for public viewing via [ww.NEAT-ID.org](http://ww.NEAT-ID.org) and if your centre has not signed up, you can do so via this link.
- The Lean European Open Survey on SARS-CoV-2 Infected Patients (LEOSS) launched by the German Society for Infectious Diseases (DGI) and ESCMID’s Emerging Infections Task Force (EITaF) an open register based on anonymous questionnaires and they are keen to collaborate with other registries. See [https://leoss.net](https://leoss.net), contact them by email at [info@leoss.net](mailto:info@leoss.net) and the register can be accessed here [https://leoss.net/statistics](https://leoss.net/statistics).

The coronavirus outbreak is rapidly evolving. EACS and BHIVA will continue to share any updates to specific guidance for people living with HIV. Wishing you all well. Stay healthy.

**For further information please contact** bhiva@bhiva.org **or media enquiries to Jo Josh on +44 (0) 7787 530922 or jo@commsbiz.com**

**References**

2. [www.rki.de](http://www.rki.de)