

AFAO, ASHM and Hepatitis Australia invited the following experts to present information and respond to questions

Professor Andrew Grulich will discuss the epidemiological and public health aspects of the virus.

Professor Sharon Lewin will discuss the science of COVID-19 including research on a vaccination.

Associate Professor Edwina Wright will consider the implications of the virus for people with chronic and complex health conditions focussing on BBVs and STIs.

This document provides responses to questions raised in the zoom meeting briefing delivered on March 19 2020 located [here](#). The responses are from our speakers Edwina Wright (EW), Sharon Lewin (SL) and Andrew Grulich (AG). The names of people asking questions have been de-identified to protect their privacy.

HIV treatments are referenced in this document, for more information about HIV treatments please refer to The National Association of People With HIV Australia ([NAPWHA treatment page](#)) and the [ASHM Anti-Retroviral Guidelines website](#).

Scott Morrison mentioned a 6month process, wondering about the security of HIV medication over the 6-9 months, now that Europe is going into lock down.

EW: I have been told today by a large pharmaceutical company that Australia has enough of its HIV antiretroviral stock in the country to last for the next 6-12 months. Today the Deputy Chief Medical Officer stated that some prescription medicines will be limited to one month's supply at the prescribed dose. See, <https://www.abc.net.au/news/2020-03-19/coronavirus-update-australia-covid19-more-than-200000-cases/12069180#Medicine>. We will need to remain in contact with our colleagues in the pharmaceutical industry to address their planning for the longer-term supply of HIV antiretroviral agents used for the treatment and prevention of HIV infection.

Is there an update on whether protease inhibitors are effective in treating Covid19?

EW: Currently there are international trials planned to examine the efficacy of lopinavir co-formulated with ritonavir to treat people with COVID-19. In Australia there are plans for a clinical trial with these antivirals along with an anti-malarial agent, see <https://www.ug.edu.au/news/article/2020/03/researchers-set-begin-clinical-trials-coronavirus-cure>. However overnight the New England Journal of Medicine released results of a 199 participant study of hospitalised people with Covid-10 from China, see <https://www.nejm.org/doi/full/10.1056/NEJMoa2001282>. Most participants were not ventilated at the time of study enrolment. Participants were randomised to standard care alone versus standard care plus lopinavir-ritonavir (400mg-100mg twice daily for 14 days). The study sought to see if there was a difference in time to recovery but did not show any difference between the two arms for this outcome. Further, there were no mortality benefits, and no difference in the detectability of throat viral RNA observed in the lopinavir-ritonavir arm. However, in a modified analysis of the study's findings, there was a one-day difference in time to recovery that was statistically significant and favoured the lopinavir-ritonavir arm. The authors raised the

possibility that future studies may involve lopinavir-ritonavir in combination with other investigational treatments for COVID-19.

Regarding the currently used HIV antiretroviral treatment agent Darunavir, Janssen has recently stated that its drug Darunavir and other Janssen compounds, are currently being evaluated for their antiviral activity against the SARS-CoV-2 virus, see <https://www.janssen.com/uk/sars-cov-2-treatment>.

See the following article for a discussion on some agents currently being evaluated for the treatment of SARS-CoV-2, <https://aac.asm.org/content/early/2020/03/03/AAC.00399-20.long>

Hello all. My team from [Mosaic Services, Relationships Australia, South Australia](#) are attending today. We have clients who have asked about flu vaccinations and when these will be available, also about what will happen about their appointments with an infectious diseases physician and getting medication and support from clinical services

EW: I think the best thing is to advise is that clinics will likely be contacting their patients in the near future to explain what's happening with their upcoming appointments. Encourage people to check their clinic's website for information. If people become very anxious they can email or ring their clinic for advice.

Is there an impact on HIV viral load testing as a consequence of testing for COVID-19

EW: I have not seen any delays yet; **SL** would have important insights into this.

SL: I don't anticipate that this will be an issue as HIV viral load testing uses a different commercial kit to the COVID19 kit

Regarding the flu vaccine...I know it's been recommended to avoid coinfection with COVID-19. The usual recommendation is to have one from the end of April onwards. Should we be considering having the flu vaccine earlier now?

EW: The flu vaccine will be available in April and I expect that clinicians will be given guidance on how to prioritise the administration of the flu vaccines. For example, they may prioritise healthcare workers and the sickest and most vulnerable populations in the community first.

Do people living with Hepatitis B (HBV) or Hepatitis C (HCV) need to take any extra precautions to prevent infection with COVID-19?

EW: At this stage we do not have any evidence to suggest that people living with these two BBVs are at greater risk of SARS-CoV-2 infection or poorer outcomes. However, for people with these BBVs who have other co-morbidities like hypertension, cardiovascular disease or diabetes and/or who are older, they may be at greater risk for COVID-19 SARS-CoV-2 infection.

Broadly speaking, people with co-morbidities seem to be at greater risk for infection- these data come from small studies from China and Singapore- and also people with comorbidities have a higher case fatality rate- these data come from a very large study from China. This is the evidence we have. We need more data about why people with co-morbidities might be more susceptible to infection and hopefully it will be forthcoming soon.

During the briefing yesterday I said it is plausible that people living with HIV and not on treatment and with a low CD4 cell counts may be more vulnerable to infection. Currently it is unknown if having lower CD4 cell counts whilst on virologically suppressive antiretroviral treatment OR having had prior past severe immunosuppression are risk factors.

Future studies will tell us whether people on stable ART with prior severe immunosuppression, or people who have not had good CD4+ cell restoration on ART are at greater risk for infection or poorer outcomes.

In summary, I think that the messaging to people living with BBVs and the BBV sector should be that COVID-19 is occurring mostly in people between the ages of 30-80, that early evidence from small studies suggest that people with co-morbidities may be more likely to become infected with the COVID-19 virus, but this needs to be confirmed with larger studies. Death rates are highest in people who are in their 70's and 80's and death rates are higher in people with co-comorbidities. We will continue to be guided by the scientific evidence as it emerges.

Should people who are taking HCV treatment make any adjustment or even cease treatment?

EW: I would not recommend that people adjust or cease their HCV antiviral therapy. HCV treatment is vital and leads to improved health outcomes for individuals with HCV infection. Adjusting the dose could theoretically put the person at risk for HCV drug resistance.

Should people taking medication for diabetes, hypertension cease them or see their doctor regarding the continuing of the medications?

EW: I would not recommend that people cease these medications. A recent opinion piece was published suggesting that peoples change away from these medication, see [https://www.thelancet.com/journals/lanres/article/PIIS2213-2600\(20\)30116-8/fulltext](https://www.thelancet.com/journals/lanres/article/PIIS2213-2600(20)30116-8/fulltext). However, more research needs to be done to determine whether these medications are contributing to increased susceptibility to SARS-CoV-2 infection and poorer outcomes. A lot of these medications are critical to preserving a person's health and, in some cases, cessation of these medications could be life-threatening. Recently the European Society of Cardiology issued a position statement saying not to cease these medications, see [https://www.escardio.org/Councils/Council-on-Hypertension-\(CHT\)/News/position-statement-of-the-esc-council-on-hypertension-on-ace-inhibitors-and-ang](https://www.escardio.org/Councils/Council-on-Hypertension-(CHT)/News/position-statement-of-the-esc-council-on-hypertension-on-ace-inhibitors-and-ang).

Are ASHM providing direct education or information to the Australian Prison system about how best to support prisoners with their BBV care and treatment?

EW: This is a fantastic question and something that the Taskforce that ASHM is going to bring together, should address.

There was mention of defining 'close contact' - would be great to get a concise and clear definition from the clinical side that we can pass on to community.

EW: This is the definition that we are using at the Alfred Hospital: ****Close contact** is defined as greater than 15 minutes face-to-face contact with a symptomatic suspected or confirmed case in any setting, direct contact with body fluids/specimens, or sharing a closed space with a suspected or confirmed case for a prolonged period (greater than 2 hours) while not wearing the recommended personal protective equipment (PPE).

Sex workers are massively impacted in terms of loss of income and also concern that our work involves high risk contact for infection and spread. Does anyone have any specific advice for sex workers?

EW and AG: In-person (as opposed to virtual) sex work is likely to be high risk for coronavirus transmission. There are some early suggestions that some sex workers are transitioning to online, virtual sex work. This may not be possible or wanted by many sex workers. Sex workers need immediate economic support from the government to support their health and livelihood if they lose their income as a result of the COVID-19 pandemic. We need immediate guidance from health authorities on how to support the health of sex workers and ongoing guidance as the pandemic evolves in Australia, on how people can as safely as possible navigate casual and paid sex. Joy 949 radio addressed this topic tonight I believe.

Sharon mentioned 'possible immunity' - can anyone expand on this? I've heard mixed messages regarding this aspect.

SL: Following infection with COVID19, people make an immune response and, in most people, antibodies are detected. Whether this immune response protects from re-infection is unknown. Based on studies in SARS and in animal models, protection from re-infection was demonstrated several months post infection but this was not lifelong. We are still learning what is happening to the immune system in COVID19

Do we know more about the specifics of transmission from asymptomatic people? Is it the same as for symptomatic people? eg 2 hours in close confines with other people?

EW and AG: People can be infectious in the 24 hours prior to symptom onset, and there is some data to suggest that some people may be infectious while having completely asymptomatic infection. However, separating these two situations in the literature is difficult. A paper has just come out in the New England Journal of Medicine about the SARS-Cov-2 viral load from nasal and throat swabs of 18 peoples including 4 with secondary infection and one asymptomatic contact. It's a slightly tricky read, see <https://www.nejm.org/doi/full/10.1056/NEJMc2001737>. They measured the viral

load in the 13 symptomatic peoples with pneumonia and in the asymptomatic people and found that the viral load in the asymptomatic person was similar to those of the symptomatic people. There is other evidence to suggest that viral loads may be lower in asymptomatic people, and as asymptomatic people are in general not coughing, it is likely they are less infectious in settings of social contact. So, while it is very likely therefore that the asymptomatic people spread the virus via their respiratory tracts like symptomatic people, they will be forming droplets less often. The widely-publicized Imperial College Model assumes that symptomatic people are twice as infectious as asymptomatic people <https://www.imperial.ac.uk/media/imperial-college/medicine/sph/ide/gida-fellowships/Imperial-College-COVID19-NPI-modelling-16-03-2020.pdf>

SHINE SA here - what is the length of time the virus lives on surfaces please?

EW: A paper was published in the New England Journal of Medicine today on this topic, see <https://www.nejm.org/doi/pdf/10.1056/NEJMc2004973?articleTools=true>. A brief summary of their findings is that the SARS-CoV-2 virus can remain viable as an aerosol for several hours and is viable on plastic and stainless steel for up to 72 hours albeit at very low titres by 72 hours. No viable SARS-CoV-2 was measured on copper after 4 hours and no viable SARS-CoV-2 was measured on cardboard after 24 hours. These findings indicate that aerosol and fomite transmission of SARS-CoV-2 is possible.

A question to Edwina.

There is some confusion about the effectiveness of the HIV treatment Kaletra [in treating COVID-19]. Has research been scrapped on this as treatment and/or Prophylaxis? Are Australian researchers continuing to investigate? There are just a small number of PLHIV still taking HIV treatments like Retonivir. Is there a possibility that these people may have built up an immunity and this can be studied to come up with a treatment?

EW: Hi. See some comments above about today's report regarding a study of Lopinavir-ritonavir plus standard care versus standard care alone for people with Covid-2 pneumonia. More work to be done but there is no current evidence that people taking ritonavir are protected against SARS-CoV-2.

We must include people with disabilities.

EW: Yes, because social distancing and social isolation may be even greater in this population and there are clear health risks from long-term social isolation. See, <https://www.hrsa.gov/enews/past-issues/2019/january-17/loneliness-epidemic> and for a broad NYT review, see <https://www.nytimes.com/2020/03/13/opinion/coronavirus-social-distancing.htm>