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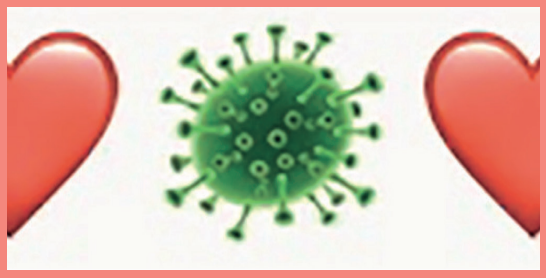
HTB: vol 22 no 5: plus COVID-19 supplement

hiv treatment bulletin (e)



BHIVA/BASHH 2021 + 15 COVID reports (3 May 2021)

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Published by HIV i-Base

Contents continued ...

i-Base 2021 appeal

Please support i-Base with £5 or £10 a month...

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

i-Base now recieve 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.

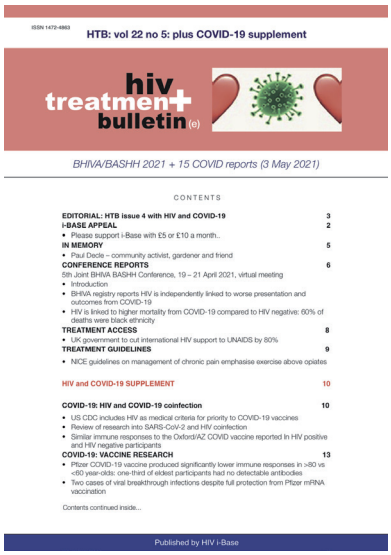
http://i-base.info/i-base-appeal-we-need-your-help

Plus a BIG thank you all all supporters over the years including in the recent Solidarity2020 campaign.

More than 70 people bought one or more posters curated by Wolfgang Tillmans and the Between Bridges Foundation, to who we are also really grateful :)

EDITORIAL

This issue of HTB starts by remembering Paul Decle, a UK community activist who was part of the core group that founded i-Base in April 2000, and who supported many other UK organisations.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And although we planned to steadily reduce our coverage of COVID-19, the first reports from the 5th BHIVA/BASHH conference, all report on outcomes in people living with HIV.

These include results from a BHIVA audit and from a PHE analysis, both reporting HIV as an independent risk for worse outcomes.

Our reports include the publication of NICE guidelines on pain management and the news that the UK government plans to reduce funding to UNAIDS by 80%.

And then we roll into 15 reports related to COVID-19, ranging from vaccines research, experimental treatment, long COVID, transmission and prevention.

Of these, perhaps the most serious, reports significantly reduced immune response to the full course of mRNA vaccines in populations with immune suppression. For example, 30% of participants older than 80 years and 50% of recipients of solid organ transplant produced no detectable immune response, three weeks after the second dose.

This raises important questions for some HIV positive people who are in either of these groups, or who are more vulnerable due to BHIVA criteria of having a very low CD4 count (<50 or perhaps <200 cells/mm^3).

Until supported by evidence of protection, either on an individual or subgroup level, it might not be accurate to rely on immune protection after a coompleted vaccine schedule.

But with so much to read, we will keep this introduction short.

Happy reading.

IN MEMORY

Paul Decle – community activist, gardener and friend

It is with deep sadness that we report that UK community activist Paul Decle, also a dear friend and collaborator, died in the early hours of 27 April 2021, from complications related to Motor Neurone Disease (MND).

For over 20 years, Paul worked with numerous community organisations and HIV projects where he was a popular member of any team and he will be deeply missed.

In the late 1990s, he was an active member of the steering committee of AIDS Treatment Project and was one of the core group that founded HIV i-Base in April 2000. He used his technical expertise to develop websites for many organisations (including i-Base) where for many years he managed the geeky aspects of technology that still remain a mystery to the rest of us: starting at 4 am to keep an afternoon free to catch sun.

At i-Base, Paul also played a key role in developing and running the UK-Community Advisory Board (UK-CAB) when it was first set up. He used this experience for his future independent projects, particularly to develop and nurture a new network of patient forums linking many of the larger HIV clinics. For several years he was employed developing peer services at the Chelsea and Westminster hospital.

More recently, Paul was both a Trustee and Chair of the national peer support organisation Positively UK. Silvia Petretti, the current Chief Executive, said “Paul was a fervent believer in the power of peer support, with an impeccable dress sense and wicked sense of humour. He had a very kind and open hearted way to approach everyone here”. He was also generous and caring. When I was developing the PozFem Positive Women Network, Paul approached us, unsolicited, offering to develop the PozFem website, and did it all for free”.

Paul was also an experienced and talented gardener. During the late 1980s he designed and planted the outside courtyard and garden of the Landmark HIV Centre in Brixton. And i’n 2019 he brought all these skills to a new and innovative project to combat stigma, isolation and mental health issues experienced by people living with HIV. In partnership with the Courtyard Clinic at St George’s Hospital, he set up a gardening club to develop HIV peer support in an informal setting. Bringing ornamental (and edible) plants to forgotten tarmac this project also grew a wild meadow while helping with physical and emotional well-being – for both patients and staff. This was awarded well-deserved funding from the National Lottery.

All this was despite personal health difficulties that became progressively worse over the last three years. Although he was eventually diagnosed with MND, this probably explained other symptoms he had been managing for much longer.

Paul tackled the impossible challenge of MND with remarkable strength and courage. And also with openness – posting to the UK-CAB forum early last year about his diagnosis in order to support others with a terminal illness.

Paul was a remarkably gentle person and could encourage the best out of everyone. But he also welcomed the challenge in difficult situations if he needed to stand up for important principles. I was always grateful to have his support as a colleague for so many years.

Paul was also one of those people who could laugh at the complexity of life. As someone with a sturdy collection of DMs and proud history of living in squats, he could have just as much fun turning heads in the latest and sharpest suit from Prada.

Reactions to his death were immediate. Dr Laura Waters, Chair of BHIVA wrote: “He was nothing short of legendary and a voice I respected hugely”. Marc Thompson, cofounder of Prepster and BlackandGayBackIntheDay wrote: “I will always remember how Paul could go from the deadly serious to that little boy giggle. And no-one rocked a sharp suit and DMs like him. He was an amazing member of the HIV family, he will be missed”.

Our thoughts are with Paul’s family and friends at this difficult time. They are especially with his husband and life partner Christian – they were inseparable for more than 30 years.

This link to Christian’s Facebook post includes many personal tributes.

https://www.facebook.com/christian.decle

Simon Collins and Polly Clayden

CONFERENCE REPORTS

5th joint BHIVA/BASSH conference 2021

19 to 21 April 2021

Introduction

This year the BHIVA spring conference was jointly organised with BASHH and held as a three-day virtual meeting.

As usual, the programme was abstract driven and also supported by more than 180 posters.

The response to COVID-19 was a main theme, including two important oral presentations reporting that HIV was independently associated with more serious outcomes, plus dozens of other studies looking at the impact of both the virus and lock down over the last year.

Although access to conference materials, including webcasts and PDF posters are currently restricted to delegates, everything will become open access by mid-May, four weeks after the meeting.

https://bhiva-bashh.org

The abstract book is available here. *(Link will be included once posted online)*

The following reports are included this issue of HTB.

- BHIVA registry reports HIV is independently linked to worse presentation and outcomes from COVID-19
- HIV is linked to higher mortality from COVID-19 compared to HIV negative: 60% of deaths were black ethnicity
- Case-control study of HIV positive people hospitalised with COVID-19

BHIVA registry reports HIV as independently linked to worse presentation and outcomes from COVID-19

Simon Collins, HIV i-Base

An analysis of outcomes from COVID-19 in HIV positive people were collected as part of a BHIVA audit and the results was presented at the BHIVA conference. Although retrospective data was collected from October 2020 until the end of March 2021, participating clinics included all cases from January 2020.

Audit leads were invited to submit details of people attending their services with suspected/confirmed COVID-19, with data collected through the BHIVA audit system.

The analysis used two regression analyses looking at severity of symptoms at presentation (based on use of oxygen ventilation) and factors linked to worse outcomes (based on extended hospitalisation, death or continued symptoms >3 months).

Multivariate analyses covered three main categories: regular demographics (including employment), clinical/lifestyle risks (including a new comorbidity score), and HIV-related factors. Notably, a double weighting was given for uncontrolled compared to controlled comorbidities, and also for recent HIV viraemia (>200 copies/mL) compared to having an undetectable viral load on ART.

Overall, the registry included 1310 cases: approximately 50% were older than 50 years, 40% were women and 50% lived in London or the South. Ethnicity included 47% white, 37% black African and 15% other/unknown. An occupational risk was reported by 35% (mainly health and care work) and 16% had a recent household contact with a confirmed case.

Symptoms at presentation

Just under 80% or cases reported symptoms: mainly fever (47%), cough (51%), shortness of breath (36%) or anosmia (23%). Although within this group, only 60% were confirmed by PCR, this percentage was much higher (95%) for those without symptoms.

HIV demographics included median CD4 count of 611 cells/mm^3 (IQR: 437 to 812) and but a significantly lower CD4 nadir of 257 cells/mm^3 (IQR: 123 to 410). Median CD4:CD8 ratio was 0.8 (IQR: 0.57 to 1.15) with 9% being <0.4. Roughly 4% had a current AIDS diagnosis, 18% a previous AIDS event, and 15% had recent HIV viraemia.

The median comorbidity score was 1 (but ranged from 0 to 13), mostly controlled, with the most common being hypertension (25%), obesity (20%), dyslipidaemia (17%) and diabetes (12%). Median BMI was 28 kg/m^2 (IQR: 24 to 32) and 12% were current smokers.

Overall, 24% of cases required hospital admission, 8% to ICU, 16% needing oxygen support and 5% mechanical ventilation. This meant 230/1310 (17%) were categorised with severe presentation.

Although most factors were associated with poor presentation in the univariate analysis, only age (p=0.0001), being female (p=0.0002), black African ethnicity (p=0.0001), BMI (p=0.0002), comorbidity score (p=0.0001) and previous AIDS (p=0.005) highly significant in multivariate analysis.

Importantly, higher latest CD4 count was protective (p=0.04) suggesting an independent association of HIV.

Outcome results

Outcomes were available for 985/1154 participants (130 were still within the three month window) of which 85% (n=985/1154) were positive. However, 169/1154 (15%) had a poor outcome linked to persisting physical health problems.

In multivariate analysis, poorer outcomes were significantly associated with: older age (p=0.06), higher comorbidity score (p=0.0001), shortness of breath (p=0.0001) and anosmia (p=0.006). Again, CD4 count <200 cells/mm^3 (p=0.02) was also significant, supporting an independent effect of HIV.

However, when severity of presentation (p=0.0001) was added to the model, only total comorbidity score (p=0.006) and shortness of breath (p=0.0006) remained significant, suggesting other factors were significant because they drove a poorer presentation.

C O M M E N T

Although as the study can't comment on prevalence and incidence of COVID-19 in HIV positive people, low CD4 count and previous AIDS independently linked to worse outcomes, supporting a causal role of HIV.

The study did not report on mortality (approximately 6%) because initially the registry only expected several hundred cases overall and this would have been too few for a separate outcome. However, the data on deaths will be included as a sensitivity analysis in the full paper.

Reference

Sabin C et al. Coronavirus (COVID)-19 in people with HIV in the UK: Initial findings from the BHIVA COVID-19 Registry. Joint BHIVA BASHH Spring Conference, 2021. Oral abstract O-008.

https://bhiva-bashh.org/sessions-posters/session-13-day-2

HIV is linked to higher mortality from COVID-19 compared to HIV negative: 60% of deaths were black ethnicity

Simon Collins, HIV i-Base

Complimentary to the BHIVA audit, Public Health England presented their data on HIV and COVID-19 mortality from the first months of the epidemic. [1]

This was defined as any death in adults (>15 years old) within 60 days of a COVID-19 diagnosis, or the specific inclusion of COVID-19 on the death certificate or enhanced surveillance form used in the study.

The study linked records in the PHE HIV surveillance data to the national COVID-19 surveillance system. Crude mortality rates were calculated for both HIV positive and HIV negative groups, including by age, sex, region, ethnicity and level of regional deprivation.

The study identified 115 cases of HIV positive people having a COVID-19 related death, with 99 confirmed by their HIV doctor and included in this analysis.

Overall, mortality rates were 107 vs 109/100,000 of HIV positive vs negative groups respectively.

Clear and significant differences however became clear where separating results by age. For people aged 15 to 59 years old, rates were 58 vs 10 per 100,000 and for those aged >60 they were 434 vs 355 per 100,000, with 5-fold and 1.2 fold higher rates for the HIV positive vs negative groups respectively. The also illustrated the statistical Simpson's paradox suggesting strong confounding with age.

In multivariate analysis, sex, age, ethnicity and HIV status were significantly associated with increased risk of COVID-19 related death, all p=0.0001 (in both HIV positive and negative groups), with an overall adjusted risk ratio for HIV of 2.18 (95%CI: 1.76 to 2.70).

The characteristics of the HIV positive people who died included median age 60 years and that 68% of deaths were black, Asian or other ethnic minority (compared to only accounting for 35% of the HIV population. This included 61 black, 5 Asian and 1 other/mixed. Adjusted rate ratio by ethnicity were aRR (3.44; 95%CI: 3.06 to 3.87) for black, (2.24; 95%CI: 2.00 to 2.52) for Asian and (3.23; 95%CI: 2.86 to 3.65) for other/mixed, compared to white ethnicity.

The HIV clinical profile (based on 94 forms) included median 15 years since HIV diagnosis, 88% having attended outpatient care at least once since 2018, 94% on ART, 58% with latest CD4 count <350 cells/mm^3 and 91% with viral load <200 copies/mL.

Overall, 90% had any comorbidity, with 87% having more than one and 68% having more than two. The most common included cardiovascular (69%), obesity (49%), diabetes (48%), chronic kidney disease (41%) and hypertension (39%). These percentages were all significantly higher than reported for cause of death in 2019 (pre COVID-19).

C O M M E N T

This is important data with this analysis linking mortality with a lower CD4 count. The lower age among the HIV positive deaths should be included in public information on transmission risk.

The significant impact of ethnicity is also needs to be included in public information, likely due to higher occupational and complex social risks. Similar results for the general population in the UK from the OpenSAFELY observational study were also just published in the Lancet. [2]

This study could also have underestimated HIV-associated rates as people with undiagnosed HIV would be counted as HIV negative and that many HIV positive people might have minimised their exposure risk by more careful shielding and social distancing during the early epidemic.

An updated analysis of results for the rest of 2020 will hopefully also be available soon.

Simon Collins is a community representative on this study.

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1. Croxford S et al. COVID-19 mortality among people with HIV compared to the general population during the first wave of the epidemic in England. Joint BHIVA BASHH Spring Conference, 2021. Oral abstract O-009.
   https://bhiva-bashh.org/sessions-posters/session-13-day-2
2. Mathur R et al. Ethnic differences in SARS-CoV-2 infection and COVID-19-related hospitalisation, intensive care unit admission, and death in 17 million adults in England: an observational cohort study using the OpenSAFELY platform. The Lancet, doi: 10.1016/S0140-6736(21)00634-6. (30 April 2021).
   https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(21)00634-6/fulltext

UK case-control study of HIV positive people hospitalised with COVID-19

Simon Collins, HIV i-Base

A retrospective case-controlled study from the first months of the pandemic did not find that HIV status was associated with poorer outcomes in people hospitalised with COVID-19.

The RECEDE C-19 study recruited adults from six hospitals (mainly from London but also Leicester and Manchester) from four months early in the pandemic (February to May 2020). HIV negative controls were matched in up to a 3:1 ratio for gender, hospital, date of infection (within a week), age (within five years) and deprivation index (for region) as ethnicity data was poorly recorded.

The primary outcome was time to either improvement by two points on a standard COVID 7-point ordinal scale or hospital discharge, whichever was sooner.

From more than 6600 admissions, 68 HIV positive people were matched to 181 HIV negative controls. At baseline, HIV positive people were significantly more likely to be frail (median frailty score of 3 vs 2, p=0.0069), from Black or minority ethnic communities (75% vs 58%, p=0.0002), to have chronic kidney disease (35% vs 12%, p=0.0001) and to have chronic liver disease (4% vs 0.6%, p=0.031). The HIV negative cohort was more likely to have rheumatology disease or asthma.

In univariate analysis, HIV positive people were less likely to reach the primary outcome, although 28-day mortality was similar.

In the multivariate analysis, after adjusting for comorbidities, duration of symptoms and ethnicity, HIV status was no longer significant (p=0.11), and the impact of frailty (p=0.011) and having an active malignancy (p=0.014) were attenuated. BMI <25 also became significant (p=0.047).

Characteristics of the HIV positive cohort had been HIV positive for a median of 15 years (IQR: 10 to 18), with median CD4 352 cells/mm^3 (IQR: 253 to 619) and 97% had viral load <200 copies/mL but five people were not on ART.

The presentation also included results of a planned sub analysis on respiratory bacterial coinfection, that were low in both cohorts but non-significantly higher in the HIV positive group (13% vs 6%, p=0.123). In the HIV positive group, coinfection was not related to hospital duration or 28-day mortality. Conversely, in the HIV negative cohort, coinfection was associated with both longer hospital stay (p=0.0007) and mortality (p=0.002).

C O M M E N T

It is good to see these results from this carefully conducted study.

However, especially in contrast to the BHIVA registry and PHE mortality studies (see above) the sample size was probably too small to be powered to look at mortality as an endpoint.

Ethnicity might also affect the results as this was not consistently reported.

Reference

Lee M et al. HIV and COVID-19 inpatient outcomes in England during the early pandemic. Joint BHIVA BASHH Spring Conference, 2021. Oral abstract O-007

https://bhiva-bashh.org/sessions-posters/session-13-day-2/

TREATMENT ACCESS

UK government to cut international HIV support to UNAIDS by 80%

Simon Collins, HIV i-Base

On 29 April 2021, UNAIDS responded to the UK decision to reduce support from the UK for 2020 from £15 million to 2.5 million.

This is disturbing for both the direct loss of funding and the signal it sends to other international donors.

The press release stated:

“This cut of £12.5 million (or more than 80%) is significant. It affects the provision of live-saving HIV prevention and treatment services around the world. It affects the empowerment of young women and adolescent girls and their access to sexual and reproductive health and rights across the world, and Africa in particular. It impacts on support to upholding the human rights of some of the most marginalized people, including lesbian, gay, bi-sexual, transgender, queer and intersex people in low- and middle-income countries. It reduces global health security.

UNAIDS recognises the challenging situation facing many governments, yet deeply regrets this decision of our longstanding partner and advocate. We are assessing the full scope and impact of the cut and are actively formulating mitigation strategies.

The UK government has said the decision does not reflect a diminished commitment to UNAIDS or the HIV response. UNAIDS will continue working with the UK and partners to explore ways to ensure continuity and predictability of funding to sustain the hard-won gains in the fight against HIV and to end AIDS as a public health threat by 2030.

The UK has been a leader in the fight against AIDS. It has called for the G7 to be centred on beating pandemics and is rallying the world for girls’ education and empowerment. UNAIDS is determined to deliver breakthroughs on those together with the UK. We hope that the UK, which has rated UNAIDS ‘A’ for delivery, will decide to supplement its current allocation for 2021.”

Reference

UNAIDS press statement. UNAIDS statement on UK’s proposed reduction in financial support. (29 April 2021).

https://www.unaids.org/en/resources/presscentre/pressreleaseandstatementarchive/2021/april/20210429_uk_funding

TREATMENT GUIDELINES

NICE guidelines on management of chronic pain emphasise exercise above opiates

Simon Collins, HIV i-Base

On 7 April 2021, the National Institute for Clinical Excellence (NICE) issued long-awaited guidelines for the management of chronic pain in adults aged 16 and older. The document and supporting papers cover both primary pain (without a clear cause) and secondary pain (linked to anther illness), estimated to affect between 1 to 6% of people living in England. [1]

The guidelines are written for health workers, commissioners and people affected by chronic pain. They are apparently not aimed to be proscriptive, but to offer guidance to improve overall care. They are also to be used together with other NICE guidelines on condition with chronic pain, including guidelines on headaches, low back pain and sciatica, rheumatoid arthritis, osteoarthritis, spondyloarthritis, endometriosis, neuropathic pain and irritable bowel syndrome.

The guidelines are framed around concern for individualised care that itself is centred on the experiences and involvement of the individual and their preferences.

Each section of the 36-page guidelines are supported by much longer and more extensive evidence reviews. For example, the preferred recommendation for exercise runs is almost 600 pages to review 23 studies that reduced pain (and 22 that improved quality of life), but then didn't recommended a particular type of exercise.

The main interventions that are recommended (some just considered) include:

- Exercise.
- Psychological therapies: CBT and acceptance and commitment therapy (ACT) are NOT recommended but can be considered).
- Acupuncture can be considered- but only a single course (maximum five hours), even if effective.
- Antidepressants: amitriptyline, citalopram, duloxetine, fluoxetine, paroxetine or sertraline. Only if >18 years old).

Many commonly used drugs are NOT recommended because of too little evidence of benefit and a concern they might cause harm. These include:

- Paracetamol.
- Non-steroidal anti-inflammatory drugs (NSAIDs).
- Benzodiazepines.
- Opioids.

Although the minimal evidence for relaxation therapy, mindfulness or psychotherapy suggested there may be some benefit the guidelines only recommended further research.

The guideline panel certainly took their evidence review seriously. Even though 'talking to people about their pain' was not supported by evidence, patient education has still been included as a recommendation - on the basis that there is 'a possible benefit and there was no evidence of harm'. (Really).

Although short-term acupuncture (three months) is recommended, based on the 200-page evidence review from 27 studies, subsequent courses are not supported, even if the treatment worked.

Other areas highlighted for further research in the management of primary pain, due to lack of evidence, include:

- Mindfulness.
- Cognitive behavioural therapy (CBT) for insomnia. (Both following a 460-page evidence review).
- Manual therapy, including including physiotherapy, occupational therapy, osteopathy, chiropractice and massage. (Following a 150-page evidence review).
- Repeat courses of acupuncture. (see above)
- Other drug treatments, including gabapentinoids and topical treatment. (Following a 350-page evidence review).
- Everything else: psychotherapy, relaxation therapy, laser therapy and magnetic stimulation.

COMMENT

The guidelines are the result of a staggering amount of work, but they are unlikely to be received well by many people hoping for more support. More seriously, some recommendations might reduce quality of life by withdrawing options that are currently working in some individuals.

HIV is not specifically mentioned.

Also, while the guidelines say they are advisory and not proscriptive, auditable health targets are commonly linked to the recommendations. These by definition limit the degree of patient access and choice, even when individual exceptions are allowed. Also, as gatekeepers to care, the outcomes from person-centred care are still largely steered and defined by doctors and other health professionals.

Although NICE is producing two new guidelines: on shared decision making and on prescribing and withdrawal of drugs associated with dependence, these are not expected until June 2021 and November 2021 respectively.

The decision to restrict acupuncture that is effectively helping to a single five-hour course for a chronic condition is really not helpful. People who are not helped will not want repeated sessions, those it helps should not be blocked due to lack of evidence of repeated benefit.

An easier and more acceptable outcome would be to recommend continued access for people who already benefit, and to encourage researchers to work with this group to collect further evidence on the effectiveness for additional courses.

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1. NICE press release. NICE recommends range of effective treatments for people with chronic primary pain and calls on healthcare professionals to recognise and treat a person's pain as valid and unique to them, (7 April 2021).
   https://www.nice.org.uk/news/article/nice-recommends-range-of-effective-treatments-for-people-with-chronic-primary-pain-and-calls-on-healthcare-professionals-to-recognise-and-treat-a-person-s-pain-as-valid-and-unique-to-them
2. NICE guidelines. Chronic pain (primary and secondary) in over 16s: assessment of all chronic pain and management of chronic primary pain. NICE guideline [NG193]. (07 April 2021)
   https://www.nice.org.uk/guidance/NG193 (download page).
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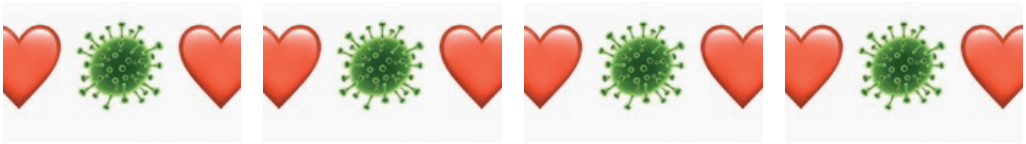
HIV and COVID-19 - bulletin



COVID-19: HIV and COVID-19 coinfection

US CDC includes HIV as medical criteria for priority to COVID-19 vaccines

Simon Collins, HIV i-Base

On 29 March 2021, the US Center for Disease Control (CDC) included HIV in the updated list of medical conditional that are independently associated with more severe outcomes from COVID-19. [1]

The recommendations are based on a comprehensive evidence review, based on observational studies from Germany, South Africa, Turkey, the UK and the US. The results will enable HIV positive people in to have priority access for inclusion in COVID-19 vaccine programmes.

This federal recommendation is especially important in the US where there was otherwise wide variability in regional and State programmes.

The decision also provides a strong scientific signal to other countries where national recommendations often closely follow US guidelines.

HIV is already included as a medical condition for vaccine access in the UK. This is either priority group six (out of nine) for uncomplicated HIV and priority group four in medically complicated cases.

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1. US CDC. Underlying medical condition. (29 March 2021). https://www.cdc.gov/coronavirus/2019-ncov/hcp/clinical-care/underlyingconditions.html
2. US CDC. Scientific evidence for conditions that increase risk of severe illness. (29 March 2021). https://www.cdc.gov/coronavirus/2019-ncov/hcp/clinical-care/underlying-evidence-table.html

Review of research into SARS-CoV-2 and HIV coinfection

Simon Collins, HIV i-Base

A review paper on HIV and COVID-19 published in the May 2021 edition of Lancet HIV is useful for an overview of issues and covers more than 120 studies. The rapid pace of research though means that some of the key discussions do not include the most recent studies.

The review discusses implications of HIV infection and immune responses that might affect the pathogenesis of COVID-19. Two studies have so far reported that the concentration and duration of IgG, IgM, and neutralising antibodies do not appear to be affected by HIV infection, although a third study reported a lower rate of neutralising antibodies. It also discusses the inflammatory status of both infections, especially if HIV viral load is not suppressed on ART. Also, the difficult issue that if uncontrolled HIV and lower CD4 counts result in longer periods of SARS-CoV-2 shedding, this might allow for easier development of viral variants.

The article raises the question of whether PCR and antibody testing need to be validated for HIV positive people although there is currently no data to inform the answer.

Although the review reports on clinical and epidemiology results from studies with at least 50 HIV positive cases, this only covers studies published up until November 2020. This also limits the applicability of the review of potential treatments for COVID-19.

Other important issues are also discussed, including mental health and vaccine access.

Reference

Ambrosioni J et al. Overview of SARS-CoV-2 infection in adults living with HIV. Lancet HIV. 8(5); E294-E305.

DOI: 10.1016/S2352-3018(21)00070-9. (1 May 2021)

https://www.thelancet.com/journals/lanhiv/article/PIIS2352-3018(21)00070-9/fulltext

Similar immune responses to the Oxford/AZ COVID vaccine reported In HIV positive and HIV negative participants

Simon Collins, HIV i-Base

On 20 April 2021, a UK paper reported the first comprehensive results in HIV positive people of both T cell and B cell responses to the Oxford/AstraZeneca vaccine. The study, published as a preprint on the Lancet SSRN website, reports no significant differences in humoral and cell-mediated immune responses in HIV positive people on ART with an undetectable viral load, compared to an HIV negative control group in the same phase 2/3 study. [1]

A second related paper, also published ahead of review, also reports no significant differences in responses to the same vaccine in HIV positive people in South Africa. [2]

The UK study was an open label, single arm, sub-study in 54 adult men living with HIV. Median age was 42 years (IQR: 37 to 49), 81% were white and median CD4 count was 694 cells/mm^3 (IQR: 562 to 864). All participants received two standard doses of the ChAdOx-1 vaccine as prime/boost 4 to 6 weeks apart.

Primary outcomes were safety, with immunogenicity as secondary endpoints.

There were also no significant differences in self-reported side effects between HIV positive and negative participants over seven days after each vaccine. This included injection site pain (49%), fatigue (47%), headache (47%), malaise (34%), chills (23%), and muscle or (36%) joint pain 77 (9%). The second vaccine (the boost dose) was linked to slightly fewer side effects.

Humoral responses were measured by anti-spike IgG ELISA and antibody-mediated neutralisation of live virus. Cell-mediated responses were measured by ex-vivo ELISpot and T-cell proliferation.

Antibodies to the spike protein peaked at day 42 (14 days after the boost dose) and were sustained to day 56, similar to HIV negative controls, with no correlation with CD4 count or age.

Virus neutralisation in a randomly selected subset of 15 participants was reported in 4/15 by day 28 and in 13/15 by day 56.

CD4 T-cell responses peaked at day 14 after the prime does and were sustained at a reduced level until day 56. Again, there were no significant differences to the HIV negative control group (for all comparisons $p>0.05$).

Although there was a theoretical concern that chronic immune activation might impact vaccine responses in the HIV positive group, the vaccine had no impact on activation of either CD4 or CD8 cells at any time point.

Although these results are preliminary, further follow-up is planned after 6 and 12 months.

The researchers noted limitations of gender (the control group were 50% women) and that more data are needed for people with lower CD4 counts. They concluded that the lack of difference by HIV status was “highly encouraging and reinforces the message that people living with HIV should be supported to receive vaccination”.

C O M M E N T

Although most phase 3 studies for current COVID-19 vaccines enrolled some HIV positive people, numbers were generally too low to produce clinical efficacy data and immunogenicity data have also not been released.

Also, although clinical results were released for HIV positive participants in the Novavax study in South Africa, vaccine recipients were more likely to report infections (n=4 with vaccines vs n=2 in the placebo arm.

It is also important that the analysis of responses in HIV positive people receiving the Oxford/AZ vaccine in South Africa showed no significant differences compared to people who are HIV negative.

Both results from the Oxford/AZ vaccine are therefore especially welcome - and other companies should also publish their HIV analysis.

References
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2. Madhi S et al. ChAdOx1 nCoV-19 (AZD1222) vaccine in people living with and without HIV. DOI: 10.21203/rs.3.rs-322470/v1. (17 March 2021).
https://www.researchsquare.com/article/rs-322470/v1

COVID-19: VACCINE RESEARCH

Low responses to mRNA COVID-19 vaccines in those older than 80 vs <60 years and in recipients of solid organ transplants

Simon Collins, HIV i-Base

On 27 June 2021, a paper, published in the journal CID, reports important differences in immune responses by age to the Pfizer mRNA COVID-19 vaccine. Similar concerns were raised just over a week later in a letter to JAMA about recipients of solid organ transplants.

The CID study compared outcomes in 176 participants (roughly two-thirds were women) who were either older than 80 or younger than 60. [1]

However, the mean age in each group was 88 years (range 80 to 100) vs 42 years (range: 19 to 59), respectively and the paper didn't comment on whether the age effect was continuous.

Although the majority of participants in both groups produced specific IgG antibody titres against SARS-CoV-2 spike, these were significantly lower by 2.8 fold in the older cohort. Although responses to the second vaccine dose did increase in both groups, the mean titre still remained significantly lower in the >80 year old group. These levels directly correlate with protection from infection.

The percentage of participants with undetectable titre levels two weeks after the second vaccine dose was 31% vs 2% in the oldest vs younger group respectively.

Also of note, in this study, symptoms post-vaccination were not related to later immune response.

The study recommends suggest close monitoring of this population that might require an increased vaccine dose to ensure stronger and long lasting protection.

However, as this issue of HTB was being sent out a letter to JAMA reported significantly poorer responses to mRNA responses in 658 solid organ transplant recipients. [2]

Only 15% participants (95% CI, 12% to18%) had a measurable antibody response after the first dose. This was after a median of 21 days (IQR: 18-25). After a median of 29 days after the second dose (IQR: 28 to 31) after dose 2, antibody was detectable in 54% participants (95% CI: 50% to 58%).

Overall, of the 658 participants, 98 (15%) had measurable antibody responses after both dose; 301 (46%) had no antibody response after either dose; and 259 (39%) only developed a response after dose 2. Poor humoral response was persistently associated with use of antimetabolite immunosuppression.

COMMENT

Although the CID study was only using one vaccine and did not report clinical outcomes the results suggest that people at highest risk because of their age, might need a different vaccination schedule. This might be just as important for other groups with reduced immune function, including transplant recipients and some people living with HIV.

It shows the importance of vaccines studies including a wider age range and higher proportion of older participants. Many studies, for example, only aim for 25% enrolment of people older than 65.

This highlights the importance of similar data for other vaccines and for other vulnerable groups, including people living with HIV who have very low CD4 counts (less than 50, but maybe <200 cells/mm3). Until available, caution might be important before assuming vaccine protection as lock down recommendations are eased.

The results from the recipients of solid organ transplant add to these concerns.

This also shows an important role for alternative approaches to vaccines, for example, ongoing research using broadly neutralising monoclonal antibodies.

References

1. Müller L et al. Age-dependent immune response to the Biontech/Pfizer BNT162b2 COVID-19 vaccination. Clinical Infectious Diseases, ciab381, doi:10.1093/cid/ciab381. (27 April 2021).
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Two cases of viral breakthrough infections despite full protection from Pfizer mRNA vaccination

Simon Collins, HIV i-Base

A paper in the NEJM reports breakthough SARS-CoV-2 infection in two people out of a cohort of 417 people at 19 and 36 days after receiving a second dose of the Pfizer mRNA vaccine.

Both cases were women (age 51 and 65) with evidence of post-vaccine efficacy but who developed COVID-19 symptoms with infections confirmed by PCR. Viral sequencing showed both cases had T95I, del142–144 and D614G mutations with E484K in one: all of likely clinical importance for variants of concern. The full list of mutations showed some overlap with patterns link to the B.1.1.7 (UK) and B.1.526 (NYC) variants, but also with significant differences.

Strong antibody responses were confirmed post vaccination in case one, including to the most clinically significant mutations, but these were not sufficient to prevent breakthrough infection. As pre-vaccination samples were not available, the paper recognises that infection might have occurred between doses, though unlikely.

These cases show the importance of continued surveillance and limiting the risk of exposure and transmission, even when fully protected from vaccination.

Reference

Hacisuleyman E et al. Vaccine breakthrough infections with SARS-CoV-2 variants. NEJM. DOI: 10.1056/NEJMoa2105000. (21 April 2021).

https://www.nejm.org/doi/full/10.1056/NEJMoa2105000

US post-authorisation safety data on Pfizer and Moderna mRNA vaccines

Simon Collins, HIV i-Base

Results from the first two months of the US surveillance programme for the first two vaccines authorised in the US - both using mRNA - are published in JAMA.

The programme - called V-safe - allows people to voluntarily enrol to received mobile text message survey links from daily for seven days after an injection with longer-term prompts over 12 months.

Questions include local and systemic reactions (injection site pain, fatigue, headache etc), but not allergic reactions. A free-text box is also included. Medical events prompted telephone follow-up.

From a total of 46 million people vaccinated, just over 3.6 million [people who completed at least one survey, Approximately 1.9 million people also completed a survey following the second dose.

Most people reported injection site reactions (dose 1: 70%; dose 2: 75%) or a systemic reaction (dose 1: 50%; dose 2: 69%) and injection site pain (67%), fatigue (31%), headache (26%), and myalgia (19%) were very common. Although reactions were significantly higher after the second dose, this might have biased people to complete the second surveys.

Reference

Chapin-Bardales J et al. Reactogenicity following receipt of mRNA-Based COVID-19 vaccines. JAMA. doi:10.1001/jama.2021.5374. (5 April 2021).
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EMA review of Oxford/AZ vaccine and rare blood clots reported in the EU

Simon Collins, HIV i-Base

On 7 April 2021, the EMA's safety committee (PRAC) included the risk of rare blood clots with low blood platelets as very rare side effects of the Oxford/AstraZeneca vaccine against COVID-19 (Vaxzevria).

This was based on a review of 62 cases of cerebral venous sinus thrombosis (CVST) and 24 cases of splanchnic vein thrombosis (SVT) reported to the EU drug safety database (EudraVigilance) up until 22 March 2021. Most were in women aged < 60 years and reported within two weeks of a vaccine. Of these, 18 were fatal. Approximately 25 million people had received the vaccine in the EU and UK.

By 4 April 2021, a total of 169 cases of CVST and 53 cases of SVT had been reported, after 34 million people had been vaccinated. These updated results did not change the EU recommendations, which still emphasised the benefit of vaccination outweighing the risk.

The mechanism is linked to a vaccine induce immune response similar to patients with heparin induced thrombocytopenia (HIT).

The EMA document recommended people seek urgent medical attention if they experience any of the following symptoms within two weeks of receiving a vaccine

- Symptoms of blood clots: shortness of breath, chest pain, leg swelling, persistent abdominal pain.
- Neurological symptoms: severe and persistent headaches or blurred vision.
- Tiny blood spots under the skin beyond the site of the injection.

Reference

EMA. AstraZeneca's COVID-19 vaccine: EMA finds possible link to very rare cases of unusual blood clots with low blood platelets. (7 April 2021).

https://www.ema.europa.eu/en/news/astrazenecas-covid-19-vaccine-ema-finds-possible-link-very-rare-cases-unusual-blood-clots-low-blood

Clinical results released for India's COVAXIN vaccine

Simon Collins, HIV i-Base

Against a background of rapid and dramatic increases in COVID-19 cases and mortality in India, the country's vaccine programme includes the COVAXIN vaccine developed by Bharat Biotech in collaboration with the Indian Council of Medical Research.

COVAXIN is an adjuvanted whole inactivated SARS-COV-2 vaccine (BBV152) that is given as two doses four weeks apart.

Results from randomised double-blind phase 2 study and earlier immunogenicity and safety data are both published in Lancet Infectious Diseases. [1, 2]

Clinical results from an interim analysis of a phase 3 study have so far only reported in a company press release. The study enrolled >25,000 participants, approximately 10% > 60 years old. Top line results include 80% efficacy at reducing PCR-confirmed symptomatic COVID-19 (7 vs 36 cases). The study will continue until reaching planned 130 endpoints. [3]

References

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   https://www.thelancet.com/journals/laninf/article/PIIS1473-3099(20)30942-7/fulltext
3. Bharat Biotech press release. Bharat Biotech announces phase 3 results of COVAXIN: India's first COVID-19 vaccine demonstrates interim clinical efficacy of 81%. (3 March 2021).
   https://www.bharatbiotech.com/images/press/covaxin-phase3-efficacy-results.pdf (PDF)

Three new COVID-19 vaccine studies enrolling in the UK

Simon Collins, HIV i-Base

The following studies are either ongoing or due to start shortly.

COVID-19 heterologous prime boost study (Com-Cov)

This two-stage study was publicised in February as a £7 million independent study that will initially use a factorial design with eight arms to study two vaccines and two dosing schedules. [1]

In Stage 1, each arm will either alternative between the Oxford/AstraZenica and Pfizer vaccines, or vice versa with either a 4 week or 12 week schedule with control arm still using single vaccines. It is a non-inferiority to compare switched dosing to the approved single dosing. Additional vaccines might be added later.

This randomised single-blind study, run by the Oxford Vaccine Group, plans to enrol 820 vaccine-naïve adults >50 years old. [2]

Stage 1 is not currently recruiting.

Stage 2 uses a similar design but will enrol 1050 adults who have already had one vaccine, and who will be randomised for the second dose. Stage 2 also includes the Moderna and Novavax vaccines.[3]

Further information about both stages, including the study protocols are online. [4]

Potential participants can register online for this study.

https://www.nhs.uk/conditions/coronavirus-covid-19/research/coronavirus-vaccine-research

OCTAVE study to study responses to COVID-19 vaccines in people with reduced immunity

A UK study plans to enroll up to 5000 people adults with reduced immune function due to health complications. These include people with cancer, inflammatory arthritis, kidney or liver disease or transplant recipients who could be at increased risk of severe complications of COVID-19 infection. [5]

The OCTAVE study is funded by the Medical Research Council (MRC), and is a collaborative research project involving groups in the Universities of Glasgow, Birmingham, Oxford, Liverpool, Imperial College London and Leeds Teaching Hospitals NHS Trust.

The study will look at immune responses compared to people without these health complications.

Phase 3 immunogenecity study comparing Valneva candidate to Oxford/AZ vaccine opens in the UK

On 21 April 2021, Valneva announced the UK launch of the phase 3 Cov-Compare immunogenecity study that will compare vaccine candidate, VLA2001 (Vaxzevria) against the Oxford/AstraZeneca vaccine. [6]

The study will randomise approximately 4,000 adults to receive two doses of either vaccine.

The primary endpoint of Cov-Compare will be to immune responses two weeks after the second vaccine.

It is supported by the National Institute for Health Research (NIHR).

Top-line phase 1/2 results from the candidate vaccine were also released by company press release on 6 April 2021. [7]

References

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4. Com-Cov website. https://comcovstudy.org.uk
5. ICL press release. COVID-19 vaccine response in patients with impaired immune systems - new study. (4 March 2021). https://www.imperial.ac.uk/news/216393/covid-19-vaccine-response-patients-with-impaired
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7. Valneva press release. Valneva reports positive phase 1/2 data for its inactivated, adjuvanted COVID-19 vaccine candidate, VLA2001. (6 April 2021). https://valneva.com/press-release/valneva-reports-positive-phase-1-2-data-for-its-inactivated-adjuvanted-covid-19-vaccine-candidate-vla2001

COVID-19: TREATMENT

Dexamethasone: final results from the UK RECOVERY study

Simon Collins, HIV i-Base

The final results from the dexamethazone arm of the UK RECOVERY study were published on 25 February in the NEJM.

In June 2020, an interim analysis led to immediate recommendation for use in adults hospitalised with severe COVID-19.

Overall, 2104 participants received dexamethasone and 4321 received standard care. The primary outcome of mortality within 28 days was reported in 22.9% (n=482) vs 25.7% (n=1110) of the active vs placebo group respectively. The age-adjusted rate ratio was 0.83 (95% CI: 0.75 to 0.93); p<0.001).

Results varied significantly depending on baseline level of oxygen support. Benefits were only reported for those with most severe COVID-19: 29.3% vs. 41.4% (rate ratio 0.64; 95% CI: 0.51 to 0.81) for those on mechanical ventilation and 23.3% vs. 26.2% (rate ratio, 0.82; 95% CI, 0.72 to 0.94) and 17.8% vs. 14.0% (rate ratio: 1.19; 95% CI, 0.92 to 1.55) receiving oxygen but not intubated.

These were very similar to the earlier interim results.

References

RECOVERY study group. Dexamethasone in hospitalized patients with Covid-19. N Engl J Med 2021; 384:693-704 DOI: 10.1056/NEJMoa2021436. (25 February 2021).

https://www.nejm.org/doi/full/10.1056/NEJMoa2021436

No impact from anakinra in mild/moderate COVID-19 pneumonia

Simon Collins, HIV i-Base

Although early studies suggested the rheumatoid arthritis drug anakinra might have a positive impact on reducing inflammation in COVID-19, this was not seen in participants with mild to moderate pneumonia in the randomised CORIUMO study.

The study screened 153 patients and enrolled of 116 patients, roughly half in the active and placebo groups. However, based on lack of difference in symptoms at day 4 or day 14, and a similar lack of difference in mortality at day 90 (27% in each group), the study was closed early based on a recommendation from the independent data and safety monitoring board (DSMB).

Further studies are be needed to see whether there is an effect for other COVID-19 indications.

Reference

The CORIMUNO-19 Collaborative group. Effect of anakinra versus usual care in adults in hospital with COVID-19 and mild-to-moderate pneumonia (CORIMUNO-ANA-1): a randomised controlled trial. Lancet Respiratory Medicine 9(3):295-304 (March 2021).

https://www.sciencedirect.com/science/article/pii/S2213260020305567

COVID-19: PATHOGENESIS

Long COVID: studies reporting on long-term follow up on COVID-19

Simon Collins, HIV i-Base

The following recent papers add to the growing complexity of defining and managing long term complications of COVID-19.

This includes accurately attributing a broad range of symptoms to COVID-19 and understanding when this might be an outcome from time in intensive care units, especially if intubated.

Previous reports in HTB have previously included studies where severity and duration of initial COVID-19 is not directly linked to risk of developing long COVID.

UK study reports 71% of people still have symptoms after five months

A multi centre observational study from the UK reports on longer term follow-up in 1077 participants hospitalised with COVID-19 in 2000. [1]

Characteristics of the group included 36% women, mean age 58 years (+/– SD 13), 69% white ethnicity, 27% mechanical ventilation, and 50% had at least two co-morbidities. Participants were assessed after a median of 5 (IQR: 4 to 6).

Overall, 71% still reported symptoms and 29% felt fully recovered. Other results included 20% reporting a new disability, and 19% having health-related change in their job.

In multivariate analysis, the following factors were associated with failure to recover: being female, middle-age, white ethnicity, two or more co-morbidities, and more severe acute illness.

French study reports symptoms are still commonly reported after four months

This prospective study of 478 participants who were hospitalised with COVID-19 from March to May 2020 at a single hospital in France were contacted by phone four months after discharge. [2]

At least one new onset symptom was commonly reported (51%). These included fatigue in 134/431 (31%), cognitive symptoms in 86/416 (21%), and dyspnea in 78/478 (16%).

CT lung abnormalities were reported in 63% of 171 participants who visited the clinic (mainly subtle ground-glass opacities). Fibrotic lesions were observed in 19% of these 171 patients.

A related editorial in JAMA comments that study is one of the first studies to systematically and comprehensively report the medical outcomes of COVID-19 survivors. [3]

The editorial comments that in addition to needing more studies looking at longer-term outcomes, recovery clinics also need to be expanded to provide support for this population.

US matched case-control study reports new symptoms 1-4 months after hospitalisation

A matched case-control study from the US also reported that 7% of people hospitalised with COVID-19 reported new symptoms within 1 to 4 months. [4]

Adults with COVID-19 were 2.8 times more likely to experience acute pulmonary embolism as compared to controls. They were also more likely to report a range of other conditions including nonspecific chest pain, fatigue, headache, and respiratory, nervous, circulatory and GI system symptoms).

These differences were not reported for children.

Pre-review community study on long COVID

A paper published in pre-review format includes 7-month follow-up of symptoms from a large international community survey. [5]

The group analysed responses from 3,762 participants. Of these 1,020 were laboratory confirmed and 2742 were suspected or untested. Participants reported from 56 countries, with illness duration of at least 28 days. Nearly all (96%) reported symptoms that continued for more than three months.

Although the paper includes analyses of patterns of symptoms, the self-selection to participate and high proportion of people with unconfirmed COVID-19 might explain why this paper has been on the pre-review website four months after it was first posted.

References

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COVID-19: TRANSMISSION & PREVENTION

Bar opening in the US: 100 guests linked to at least 46 cases of COVID-19

Simon Collins, HIV i-Base

A detailed report in the leading US public health publication MMWR included an outbreak in February 2021 of at least 46 cases of COVID-19 linked to an opening of a bar in rural Illinois county.

The event included approximately 100 customers in an indoor bar without outside ventilation, with inconsistent use of masks and social distancing. This was despite table spacing and public health signs being displayed. The 46 confirmed cases included 29 people who attended the event (26 customers, 3 staff) and 17 secondary cases including children: median age 28 years (range: 10 to 71 years).

One customer had been diagnosed with COVID-19 the day before the event and was asymptomatic and three people with COVID-like symptoms on the day were diagnosed shortly afterwards.

Other outcomes included one resident of a long-term care home being hospitalised and a school closure (with loss of >9000 person days).

The report notes that this is likely an underestimate of cases as not all customers agreed to be tested. The discussion also highlights the high rates of transmission associated with asymptomatic infection

It stresses the importance of continued community prevention: limiting occupancy of buildings, improving ventilation, outdoor seating, correct mask wearing and physical distancing. Also, staying home when ill, and encouraging COVID-19 vaccination to reduce transmission. Only one of the customers had been vaccinated and this was less than a week before the event.

C O M M E N T

Although there was low vaccine coverage, this case is relevant for current UK discussion about how to safely relax lockdown restrictions and protecting the health of staff and other customers.

From an employment rights issue this seems similar to the concern for health risks to bar staff that contributed to the smoking ban.

The broad age range of secondary cases provides strong evidence of the continued need for community prevention - even as vaccination steadily expands in the UK.

Reference

Sami S et al. Community Transmission of SARS-CoV-2 associated with a local bar opening event — Illinois, February 2021. MMWR Morb Mortal Wkly Rep. DOI: 10.15585/mmwr.mm7014e3. (5 April 2021).

http://dx.doi.org/10.15585/mmwr.mm7014e3

Large sporting event in US linked to 649 cases of COVID-19

Simon Collins, HIV i-Base

The US public health response to tracing cases of COVID-19 linked to a motorcycle rally identified 463 PCR-confirmed primary cases and 186 secondary and tertiary infections. [1]

The rally was held in August 2020 and attended by more than 460,000 people. It included both indoor and outdoor activities, but with little use of masks and physical distancing.

This paper is notable for reporting the approach to tracking outcomes from a single event that then spread widely across the US.

The same issue of CID that carried this report, included a second transmission paper on COVID-19 at several construction sites in New York. [2]

This is useful for issues of occupational exposure in environments that include limited ventilation during some activities, close proximity of coworkers and the importance of addressing this risks as lock down is relaxed.

References

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Three carefully documented cases of SARS-CoV-2 transmission in a hospital setting despite masks

Simon Collins, HIV i-Base

Three cases of SARS-CoV-2 occurring between health workers and patients are reported in the journal CID, that are also supported with phylogenetic analysis.

In all cases, masks and protective eye coverings were used.

This study shows the difficulty of achieving 100% protection.

It also reinforces the commitment of health workers who continue to focus on patient care, despite personal risk

Reference

Michael Klompas M et al. Transmission of SARS-CoV-2 from asymptomatic and presymptomatic individuals in healthcare settings despite medical masks and eye protection. Clinical Infectious Diseases, ciab218, https://doi.org/10.1093/cid/ciab218. (11 March 2021).

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FUTURE 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 will now be virtual, including those that were rescheduled in the hope that COVID-19 restrictions would be relaxed.

Virology Education meeting and workshops

Several VE workshops are highlighted below but 35 meetings are planned for 2021:

https://www.virology-education.com

HIV Prevention Review Meeting 2021

2 June 2021, Virtual (free registration for health workers, researchers and community).

International Workshop on HIV and Transgender People 2021

17 July 2021, Virtual

https://www.virology-education.com

11th IAS Conference on HIV Science (IAS 2021)

18 – 21 July 2021. Hybrid - virtual and in Berlin

https://www.ias2021.org

29th International Workshop on HIV Drug Resistance and Treatment Strategies

Virtual - four 120-minute sessions

6 September 2021, 18h00 – 20h00 SAST (UTC/GMT +2 hours)

13 September 2021, 18h00 – 20h00 SAST (UTC/GMT +2 hours)

20 September 2021, 18h00 – 20h00 SAST (UTC/GMT +2 hours)

27 September 2021, 18h00 – 20h00 SAST (UTC/GMT +2 hours)

https://www.hivresistance.co.za

12th International Workshop on HIV & Aging

23 – 24 September 2021. Virtual

https://www.virology-education.com

IDWeek 2021

29 September – 3 October 2021, Virtual

www.idweek.org

18th European AIDS Conference (EACS 2021)

27 – 30 October 2021, Hybrid - virtual and in London

https://eacs-conference2021.com

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

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 clincs.

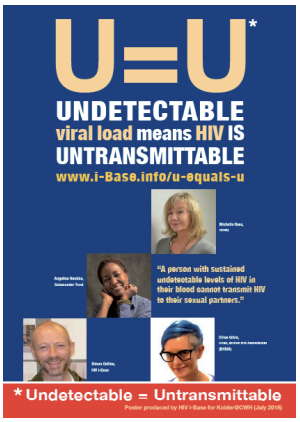
This project was developed with the Kobler Centre in London.

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 orded by email or fax.

email: subscriptions@i-base.org.uk

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 Trevelion at i-Base:

roy.trevelion@i-Base.org.uk

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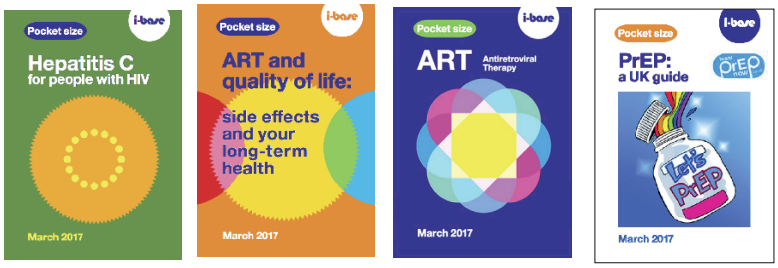

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