

Questions and Answers:

Questions asked in normal font and answers provided in bold font

How can we help especially the public schools which have little or no precautions when they resume school?

Tony: I think governments need to convene a multidisciplinary task force here to decide how to manage the return to school. And countries should learn from what other countries are doing.

For the facility register consider renaming the Column DIED to PATIENT OUTCOME, then can indicate if patient recovered, absconded or died, then the last column would be date of outcome"

Leo: Thank you for this suggestion.

How does he intend to introduce web based reporting using the identified COVID- 19 M&E system in developing countries.

https://storage.googleapis.com/stateless-bhekisisa-website/wordpress-uploads/2020/06/df4fcf94-covid_update_bhekisisa_wc_3.pdf

Tony: I was suggesting an electronic database for a health facility if capabilities exist. I think web-based reporting may be a step to far at the moment

Research from South Africa's Western Cape province, epicenter in South Africa. Dr Mary-Ann Davies on Covid 19, HIV/TB Minister of education cancelled opening of schools in South Africa. Highest grades in Primary and High schools (7 &12) opened on 8 June. Some closed again due to infections of teachers

Tony: thank you

What of multi-generational households, any data, please?

Leo: Thank you for this question. Tony: I have no data – hopefully it will come

ULTIMATELY WHAT IS THE PATHOPHYSIOLOGY OF COVID 19?

Tony: thank you – I think we discussed this under Q&A. In brief, it varies and I don't think we know yet what precipitates one direction or the other

WHAT IS THE COVID19 MORTALITY RATE IN TB POPULATION ?

Leo: There is currently little evidence on the relationship between COVID-19 and TB. There has been one recent publication in the European Respiratory Journal entitled 'Clinical characteristics of COVID-19 and active tuberculosis co-infection in an Italian reference hospital' that discussed clinical management of 20 patients with both COVID-19 and TB in a hospital in Italy. However, we need further data on this relationship to state confidently the Covid-19 mortality rate among persons with tuberculosis.

Can we conclude that Covid 19 is a seasonal pathology given the decrease in cases?

Leo: Unfortunately, we cannot determine this with certainty. Although there has been a decrease in cases in some countries in the past few months, in other countries the number of cases and the rate is increasing. In addition, mass-scale social distancing and quarantine is being put into place in many countries, potentially complicating the ability for us to understand the relationship between weather and COVID-19 spread. Therefore, I would not make this conclusion definitively without more empirical evidence.

How was the collaboration between TB programs and Covid 19 committees during the crisis?

Leo: This is an important question. Thus far it is still not well known the effect of Covid-19 on tuberculosis control in many countries. However, there have been anecdotal reports of tuberculosis control struggling in countries where Covid-19 has been burdensome.

As the audience member suggests, there is a great opportunity to integrate Covid-19 and tuberculosis programs together. Both use contact tracing and GeneXpert which potentially could be use harmoniously.

What is the place off the psychiatry in Covid19?

Tony: in the UK there have been huge mental health issues arising from COVID that range from fear of the health consequences of the virus to the lockdown and economic downturn and unemployment. Mental health services will need to step up to the plate.

What do you think about post-Covid19

Leo and Tony: I believe the audience member means effect of Covid-19 after recovery and will answer the question under this assumption. It seems that in those who are ill with COVID, it takes a long time to recover and many patients need rehabilitation.

What is the current status of BCG contribution to COVID-19?

Leo: This is another good question. There is currently no high-quality, empirical research showing an association between BCG vaccination and COVID-19. There has been some ecological research that I would consider low-quality and insufficient for understanding this relationship further.

Three trials have started in Australia, Germany, and the Netherlands investigating BCG vaccination and protection from COVID-19. These trials are all in healthcare workers (the trial in Germany also includes older individuals). It's important to re-iterate that there are BCG shortages globally and, since we do not have empirical

evidence for an association between BCG vaccination and COVID-19 we should reserve BCG for protection against tuberculosis among newborn children.

How would you monitor indirect (or secondary) impact of COVID on health facility admissions and deaths due to other severe disease?

Leo: Thanks for this question as I think it is an important one. I think partially this depends on the comprehensiveness of health facility admission and recording of deaths before and after Covid-19 pandemic. If similar before and after, I think a before-after study could be done looking at hospital admissions of several diseases other than Covid-19. These may include tuberculosis, HIV, diabetes, and other chronic diseases. I would expect to see a sharp reduction in HIV, tuberculosis, and diabetes diagnoses in health care facilities after the beginning of the Covid-19 pandemic. This does not signify less cases of these diseases but rather indicates less willingness to seek health care and/or health care management.

Investigating other infectious diseases with short incubation periods (e.g., influenza, scarlet fever, meningitis, etc.) in this manner may be difficult. For these diseases, separating out the impact of reduced transmission versus reduced health care capacity may be difficult. A reduction in cases may be due to reduced transmission from wide-scale social distancing and/or quarantine rather than health care seeking behavior.

These are just some of my thoughts to this question. Thanks again.

My country has recently started screening dead bodies at hospital before giving the body to the family. Positive cases reported from dead bodies every day. What could be the reason this group of people died before recognized as suspect for COVID-19? Does underlying conditions relate with cases?

Leo: Underlying conditions are related to Covid-19 disease and severe disease. These underlying conditions may include diabetes, heart disease, severe obesity, chronic kidney disease, liver disease, asthma, and several others. Uncontrolled comorbid disease may further increase risk of death among Covid-19 cases.

Tony: It is possible that COVID has precipitated the death but knowing that exactly will be difficult

When a child who presenting with measles-like symptoms, like fever and rashes and has complete hx of measles vaccine, would u advise for GX SARS COVID-2 test in this child with low risk of exposure?

Tony: I have little experience here but I would say yes in case this could be Kawasaki Disease related to COVID-19.

In African countries is it safe to open schools? If so what is the best strategy to follow so as to minimize further transmission in communities.

Leo: This is a good but complicated question. Much depends on the local transmission dynamics and burden of COVID-19. Settings with different epidemics may have distinct policy decisions. I think another important point to

make here is the relative infectious potential of children with COVID-19. If children are not infectious then this may be a lower risk policy. The truth is we still do not know important is their infectious potential and more information and data is needed on this. From the perspective of the US, different states are taking distinct measures. Some states are opening schools completely. Some are not opening schools in the coming school year. And some are doing a half measured approach.

How long will it take to test the effectiveness of those medicine put on trial, and how are we going to adopt those two medicines taking into consideration that the two are in second line regiment of HIV medicine

Leo: This is a good question and is largely dependent on the drug in question. Several trials are currently completing as we speak and so we should hear about these results in the coming months. Regarding lopinavir and ritonavir – this is important to discuss. Currently, there have not been positive trials for lopinavir and ritonavir however several are currently ongoing. I think it's important to consider drug availability of lopinavir and ritonavir if they have future positive results in clinical trials. Critical is to retain access to these drugs for persons living with HIV.

Tony: in UK they have a complicated randomized controlled clinical trial called Recovery that is testing several different medications. Similarly, I believe WHO is coordinating a trial of the same called Solidarity. Go on to Google and look these up.

In Zimbabwe do we have confirmed cases with underlining condition, what are they do we those with TB&HIV what is percentage of them to those recovered, what treatment management was implemented

Riitta: Thank you for this question. As of 10 June 2020, there were 320 reported laboratory-confirmed COVID cases in Zimbabwe. Unfortunately, the daily summaries issued by the Ministry do not provide information on underlying conditions, presence of TB or HIV infection. This information as well as information on treatment etc. is only available in patients' notes.

Can you please share the information on indication of antibiotics in diagnosed cases of Covid 19?

Tony: No good information. As we stated in the webinar, antibiotics are often given empirically in sick patients. Also if blood cultures are positive then antibiotics will be given.

In LMIC access to PCR is very low even for admitted cases, how reliable is RDT to screen the admitted cases to decide whether they go to covid ward or non covid ward?

Leo:

Multiple rapid diagnostic tests are in production currently and will hopefully be available. We also discussed during the seminar the availability of GeneXpert as a

potential tool for Covid-19 testing. Cepheid has made GeneXpert available for Covid-19 testing.

Tony: The Stop TB partnership released a briefing yesterday about Cepheid Xpert testing for the coronavirus.

In LMIC like Nepal ,migrant laborers are dying in quarantine due to symptoms not typically related to COVID and has tested positive on PCR testing done after death .Do we label such cases as deaths due to COVID ?

Leo: I believe these should be considered Covid-19 deaths.

Tony: I agree these should be considered COVID deaths.

Why does happy hypoxia occur ?is it due to severe pneumonia ? Why do they die suddenly without showing pneumonia like symptoms?

Tony: Good question and not sure we know the answer. Maybe due to multiple pulmonary emboli which can cause low oxygen saturation without the patients feeling breathless. Anyway it is good to measure oxygen saturation with a pulse oximeter and any reading <90% should indicate the need for hospital admission and oxygen.

I've heard that a report will be coming out soon from Mumbai group in India on TB and COVID. it's very important to know. That and Undernutrition.

Leo: Thank you for this comment. I agree that the relationship between TB and Covid-19 is very important. In addition, undernutrition is important to consider as the audience member indicates. Unfortunately, we currently don't have much information on these relationships and so I'm happy to see new reports come out.

Tony – I add to that – be good to see these reports

I have one question/ after recovering from this disease, a person becomes disabled by a spiritual illness?

"Zakirova Ruxsona/ I have one question/ after recovering from this disease, a person becomes disabled by a spiritual illness?"

Tony: good question and I don't know the answer. Many patients are disabled in many ways after COVID.

Zakirova Ruxsona / Does the viral load remain after cure?

Tony: No. The RT-PCR test becomes negative after cure although this may take a week or two. By then antibodies become positive and this is how you tell if the patient has been infected.

Can a person who has already been cured of the virus get sick again?

Leo: This is a good question. Currently, this is an open question. It is assumed that there is likely some level of immunity from past Covid-19 disease however this has not been confirmed.

Tony: I agree

Is it that the people with Lung diseases are at a greater risk of COVID-19.

Tony: We think so – those with chronic obstructive or chronic restrictive lung disease are potentially at higher risk of severe illness and death from COVID-19

And if those people contract Covid then it is life threatening for them

Leo: Most Covid-19 cases are not severe. But among those patients with severe disease then Covid-19 can be life-threatening. Among hospitalized patients, mortality can reach above 10%.

What is the impact of COVID-19 in Africa in terms of incidence, mortality and recovery?

Leo: The Covid-19 pandemic is still ongoing in Africa and we currently don't know the extent of the impact.

Tony: the latest reports I read are that there have been 200,000 reported cases and 4,000 deaths throughout the whole of Africa. Africa so far is the least badly affected continent. We do not know if this is because of under-reporting or whether COVID will be less severely distributed in Africa

Chakaya, How have you integrated COVID-19 into TB activities in communities in Kenya?

Chakaya: In principle yes. The National TB Program in partnership with local stakeholders has developed TB-COVID-19 consolidated guidelines that promotes dual testing for TB and COVID-19 in persons presenting to health care facilities with respiratory symptoms. Implementation is however hampered by insufficient testing capacity for COVID -19 and the fact that most COVID-19 testing is currently being carried out by COVID-19 surveillance teams whose focus is finding persons infected with SARS-COV2. We are working to ensure that testing for both diseases can be done simultaneously.

Do you think that the lower mortality is linked to the age or you can imagine a different presentation of the disease such the one seen now in Italy (requiring lower ICU admission and more benign)

Leo: Covid-19-related mortality is strongly related to age. Covid-19 patients above 70 years old are much more likely to have severe disease and have much higher mortality rates given disease.

The suggest data collection tool is very useful. This require a linkage between the hospitals which treat Covid patients, and community who may follow up those isolate themselves. Otherwise, we will only record the severe cases. How this linkage can be ensured to happen?

Tony: Great question. I could imagine this can be worked out at a district hospital that has health centers linked to it or at a mission hospital that also has health centers linked to it. If you can get it going please go ahead and write it up so we can learn.

Are there data about missing COVID-19 cases because they are confused with malaria?

Leo: As far as I know, we do not have much information about missing COVID-19 cases in locations with a heavy burden of malaria. Misdiagnosis in these settings is very likely and physicians must be aware of this.

Tony: I can quite imagine malaria and COVID being mixed up. My daughter just had high fevers and drenching sweats with her COVID (no cough) but she did lose completely her sense of smell which all pointed to COVID.

Are there already data on excess risks for poor outcomes in COVID-19 patients with co-morbidities that are less prevalent in high-income countries, like tuberculosis and/or sickle-cell disease?

Leo: There is currently little evidence on the relationship between COVID-19 and TB. There has been one recent publication in the European Respiratory Journal entitled 'Clinical characteristics of COVID-19 and active tuberculosis co-infection in an Italian reference hospital' that discussed clinical management of 20 patients with both COVID-19 and TB in a hospital in Italy. However, we need further data on this relationship to state confidently the Covid-19 mortality rate among persons with tuberculosis.

Tony: no information on sickle cell disease although I would expect there to be interaction.