

COVID-19 Scientific and Public Health Policy Update – (28 April 2020)

In addition to our weekly brief on the spread of COVID-19 and the actions that Africa CDC is taking to help member states, Africa CDC has begun to share a weekly brief detailing the latest changes in scientific knowledge and public health policy changes, as well as updates to the latest guidance from WHO and others. Contents of this document are not intended to serve as recommendations from the Africa CDC; rather, it is a summary of the fact base to help inform member states. It is important to note that the outbreak is evolving rapidly and that the nature of this information will continue to change. We will continue to provide regular updates to ensure member states are informed of the most critical developments in these areas.

A. Executive summary

- A number of reports published this past week suggest that alterations in smell and taste were frequently reported by mild COVID-19 cases. These symptoms were often the first apparent symptoms and without their inclusion in the case definitions could possibly lead to the misclassification of asymptomatic cases.
- Studies on testing faecal matter for SARS-CoV-2 suggest that a higher proportion of COVID-19 patients with diarrhoea had the virus in the stool. Reports indicate the virus to last longer in stool samples compared to respiratory and serum samples. Results suggest that faecal virus nucleic acid should be tested as a routine monitoring index for COVID-19 and a negative result be added to the criteria.
- Studies to measure the risk for pregnant women showed most of the cases had mild symptoms while another study showed most were asymptomatic upon delivering.
- The FDA has issued a drug safety communication to caution against use of hydroxychloroquine or chloroquine for COVID-19 outside of the hospital setting or a clinical trial due to risk of heart rhythm problems after deaths and poisonings were reported.
- A clinical trial evaluating the safety and effectiveness of chloroquine diphosphate in the treatment of severe COVID-19 in Brazil was prematurely halted as higher dosage of chloroquine diphosphate for 10 days was associated with more toxic effects and lethality. This study suggests that the higher chloroquine dosage should not be recommended for critically ill patients with COVID-19 because of its potential safety hazards, especially when taken concurrently with azithromycin and oseltamivir.
- A brief by WHO indicates that evidence of the effectiveness of antibody-mediated immunity to protect against re-infection is currently insufficient to guarantee the accuracy of an “immunity passport” or “risk-free certificate” based on the detection of antibodies to the SARS-CoV-2, the virus which causes COVID-19.

B. New guidelines and resources

- Since 17 April 2020, Africa CDC has published new and updated guidance on: [Statement on medications to treat Novel Coronavirus disease \(COVID-19\)](#); [How to wear a face mask correctly](#); [Community use of face masks](#).
- WHO has published new and updated guidance on: [Ethics and COVID-19: resource allocation and priority-setting](#); [Addressing Human Rights as Key to the COVID-19 Response](#); [The use of non-steroidal anti-inflammatory drugs \(NSAIDs\) in patients with COVID-19](#); ["Immunity passports" in the context of COVID-19](#).
- US CDC has released new or updated guidance on: [Screening Clients at Homeless Shelters](#); [Interim Guidance for Homeless Service Providers to Plan and Respond to Coronavirus Disease 2019 \(COVID-19\)](#); [Strategies to Optimize the Supply of PPE and Equipment](#); [Interim Infection Prevention and Control Guidance for Veterinary Clinics During the COVID-19 Response](#); [Interim Guidance for Public Health Professionals Managing People With COVID-19 in Home Care and Isolation Who Have Pets or Other Animals](#); [COVID-19 Travel Recommendations by Country](#).
- ECDC has issued new/updated guidance and resources on: [Infographic: COVID-19 contact tracing](#).
- PHE has issued new/updated guidance and resources on: [COVID-19: guidance for taking swab samples](#); [COVID-19: guidance for managing a funeral during the coronavirus pandemic](#); [COVID-19: how to work safely in care homes](#); [COVID-19: management of exposed healthcare workers and patients in hospital settings](#); [COVID-19: guidance for stepdown of infection control precautions within hospitals and discharging COVID-19 patients from hospital to home settings](#); [COVID-19: guidance on supporting children and young people's mental health and wellbeing](#).
- The NIH has issued: [COVID-19 Treatment Guidelines](#); and the FDA has issued a [Drug Safety Communication on hydroxychloroquine or chloroquine](#).
- The full list of latest guidance and resources from WHO and other public health institutions can be found in this [link](#).

C. Scientific updates

Basic science (virology, immunology, pathogenesis)

- A descriptive case series of the first 18 patients with COVID-19 in Singapore, reports [prolonged viral shedding from the nasopharynx of 7 days or longer in 83% of the patients](#). Results suggest that the clinical presentation of the first 18 cases in Singapore was a mild respiratory tract infection.

Epidemiology

- A telephone survey study of mildly symptomatic 202 COVID-19 patients using Sino-nasal Outcome Test 22 (SNOT-22), found that [64% of the participants reported altered sense of smell or taste](#). Results suggests that alterations in smell or taste were frequently reported by mildly symptomatic patients with SARS-CoV-2 infection and often were the first apparent symptom.
- A case report of a confirmed SARS-CoV-2 positive patient with radiologically proven pneumonia on chest CT, [who presented with only olfactory and taste disorders and no](#)

[other symptoms](#), suggests that possibly previous cases considered asymptomatic could have been misclassified because of the signs and symptoms.

- Findings from a study of 118 pregnant women with COVID-19 in Wuhan, [reports 92% of the women had mild disease, results do not suggest an increased risk of severe disease among pregnant women](#).
- A study of 215 obstetrical patients in New York City, where universal SARS-CoV-2 testing was done for all pregnant patients presenting for delivery revealed [that most of the patients who were positive for SARS-CoV-2 at delivery were asymptomatic](#).
- A retrospective analysis of 84 patients with COVID-19 in Wuhan, reports that 31% of patients with SARS-CoV-2 pneumonia had diarrhoea. A significantly higher proportion of patients with diarrhoea had the virus in stool than patients without diarrhoea. [Results suggests that elimination of SARS-CoV-2 from stool takes longer than elimination from the nose and throat](#).
- A study of 13 discharged COVID-19 patients who were quarantined for 4-week at home [reported the high presence of SARS-CoV-2 in faecal and respiratory samples of discharged COVID-19 patients indicate potential infectivity](#). Results suggest that faecal virus nucleic acid should be tested as a routine monitoring index for COVID-19 and a negative result be added to the criteria.
- A retrospective cohort study of 96 patients with laboratory confirmed SARS-CoV-2 infection reports that the virus was detected in the stool samples of 59% of patients and in the serum of 41% of patients. [Results suggest the duration of SARS-CoV-2 is significantly longer in stool samples than in respiratory and serum samples](#), highlighting the need to strengthen the management of stool samples in the prevention and control of the epidemic.
- This study of 5,700 COVID-19 cases provides characteristics, clinical presentation, and outcomes of patients hospitalized with coronavirus disease 2019 (COVID-19) in the US, the results suggests that the [most common comorbidities were hypertension, obesity, and diabetes](#).
- A systematic review of 18 studies with 1,065 participants, suggests that [most children with COVID-19 presented with mild symptoms, if any, generally required supportive care only](#), and typically had a good prognosis and recovered within 1 to 2 weeks.
- A US population study of 444,649 survey respondents reports that [45.4% adults are at increased risk for complications from coronavirus disease because of cardiovascular disease, diabetes, respiratory disease, hypertension, or cancer](#).
- A case report of 4 medical personnel with mild to moderate COVID-19 infection suggests that all the patients who met criteria for hospital discharge or discontinuation of quarantine in China¹ had positive RT-PCR test results 5 to 13 days later. Results suggest that at least a [proportion of recovered patients still may be virus carriers](#). However, this study was limited to a small number of patients with mild or moderate infection, therefore, there is a need for longitudinal studies on a larger cohort.
- A study conducted in Vo, Italy reports that [43% of the people infected with SARS-CoV-2 were asymptomatic, with no statistically significant difference in the viral load of symptomatic versus asymptomatic infections](#). Results suggest that asymptomatic and pre-symptomatic individuals have a key role in COVID-19 transmission, which makes it difficult to control the disease without strict social distancing.

¹ absence of clinical symptoms and radiological abnormalities and 2 negative RT-PCR test results

Diagnostics

- A retrospective analysis of the data of viral RNAs and serum IgM-IgG antibodies in 38 COVID-19 cases in Fuyang, evaluating the auxiliary diagnostic value of antibody assays for the detection of SARS-CoV-2 [suggests that the viral RNA was abundant in the sputum specimens, while the antibody assays identified fewer positive cases, in the early phase of the illness](#). However, the sensitivity of the antibody assays overtook that of RNA test from eighth day of disease onset suggesting the antibody detection could be used as an effective supplementary indicator of SARS-CoV-2 infection in suspected cases with no detectable viral RNA, and in conjunction with nucleic acid detection in confirming the infection.
- A study evaluating the feasibility and utility of saliva collection from screening clinic in Australia, reports there is higher viral loads in nasopharyngeal swabs (NPS) than saliva. Although [SARS-CoV-2 was detected in 2% of the saliva samples from PCR negative swabs samples](#). To be noted that the sensitivity of saliva as a diagnostic specimen is less than NPS, but saliva testing could be considered a suitable alternative first-line screening test in several environments, including low resource settings.
- A study of 353 patients compared the performance between nasopharyngeal and oropharyngeal swabs, results suggest [a higher positive rate observed in nasopharyngeal swabs than oropharyngeal swabs](#). Outcomes suggest that nasopharyngeal swabs may be more suitable than oropharyngeal swab at this stage of COVID-19 outbreak.
- The US FDA has authorised the first diagnostic test with a [home collection option for COVID-19](#), using LabCorp's Pixel by LabCorp COVID-19 Test home collection kit.

Care and Treatment

- A single-centre case series of 1,178 hospitalized COVID-19 patients in Wuhan, suggest that [angiotensin-converting enzyme inhibitors \(ACEIs\) or angiotensin receptor blockers \(ARBs\) was not associated with severity and outcomes of COVID-19 infection in hospitalized patients with hypertension](#). There was no difference in severity of the disease, complications, and risk of death in those who were taking ACEIs/ARBs compared with those not treated with these medications.
- A panel of paediatric infectious disease physicians and pharmacist paediatric [suggests that antiviral therapy for COVID-19 is not necessary for the great majority of paediatric patients](#) and recommends supportive care alone for paediatric patients
- This review describes the link between the Renin-Angiotensin-System (RAS), particularly angiotensin-converting enzyme (ACE2), and COVID-19, [results suggest that important drugs such as ACE inhibitors and angiotensin receptor blockers should continue to be prescribed](#) according to guidelines to stable patients in the context of the COVID-19 pandemic.
- An experimental study on stock SARS-CoV-2 grown in Vero cells and inoculated into either plasma or platelet units were treated with [riboflavin and UV light, results suggest that the treatment effectively reduced the titre of SARS-CoV-2 in both plasma and platelet products to below the limit of detection in tissue culture](#). The data suggest that the process would be effective in reducing the theoretical risk of transfusion-transmitted SARS-CoV-2.
- The US FDA has issued [warnings on chloroquine and hydroxychloroquine to treat Covid-19 outside a hospital or formal clinical trial setting](#) after deaths and poisonings were reported.
- Results from a proof-of-concept trial in 31 patients with COVID-19, suggest [anticoagulation agent dipyridamole \(DIPs\) supplementation was associated with](#)

[markedly improved clinical outcomes in comparison to the control patients](#), 87.5% achieved clinical cure and were discharged from the hospitals.

- Clinical trials of a drug developed by researchers in Medical College of Georgia has kicked off in Austria. [The peptide drug originally developed to treat adult respiratory distress \(ARDS\), has shown it could be very helpful in treating the coronavirus.](#)
- Health Canada has approved the [Anti-Coronavirus Therapies to Prevent Progression of COVID-19 Trial \(ACT\)](#). The trial will test a promising combination of two drugs, azithromycin and chloroquine or hydroxychloroquine.

Infection Prevention and Control

- An experimental study, [demonstrated that medical masks and N95 masks remained their blocking efficacy after being steamed on boiling water even for 2 hours](#), using avian coronavirus of infectious bronchitis virus to mimic SARS-CoV-2. Results demonstrated that three brands of medical masks blocked over 99% viruses in aerosols. The avian coronavirus was completely inactivated after being steamed for 5 minutes.
- An opinion piece suggests [that toilet flushing may generate droplet nuclei that are small enough to both contaminate surfaces and become airborne, infectious bio-aerosols containing SARS-CoV-2](#), in hospital air it maybe substantially increased by toilet flushing. Therefore, exercising simple precautions may help hospitals control both nosocomial infection and healthcare worker exposure.
- The monitoring data from First Affiliated Hospital of Zhejiang University, China reports that [strict disinfection and hand hygiene could decrease the hospital-associated COVID-19 infection risk of the staffs in isolation wards](#).

Vaccines

- A study evaluated the immunogenicity and protective efficacy of PiCoVacc in rhesus macaques (*Macaca mulatta*), a non-human primate species. 8 monkeys were injected with three doses of a vaccine comprised of chemically inactivated particles of SARS-CoV-2. Four monkeys given a high dose of the vaccine had no detectable virus in their throat or lungs seven days after exposure. [Results suggests that purified inactivated SARS-CoV-2 virus vaccine candidate \(PiCoVacc\) confers complete protection in non-human primates against SARS-CoV-2.](#) (Not peer-reviewed)
- Data from a Chinese pharmaceutical giant [Sinovac Biotech reports it's vaccine "largely protected" monkeys from infection](#) during an animal trial, and will begin human trial.
- [Human trials of a potential coronavirus vaccine for COVID-19 began last week in the U.K.](#) The University of Oxford vaccine candidate, called ChAdOx1 nCoV-19, is made from a harmless chimpanzee virus.
- MIT's Love Lab is developing a COVID-19 [subunit vaccine that could be more broadly available at affordable costs](#), and potentially reach billions of people.

Non-pharmaceutical interventions: physical distancing

- A research letter proposes a model that considers eight stages of infection: susceptible (S), infected (I), diagnosed (D), ailing (A), recognized (R), threatened (T), healed (H) and extinct (E), collectively termed SIDARTHE. [Results demonstrate that restrictive social-distancing measures will need to be combined with widespread testing and contact tracing to end the ongoing COVID-19 pandemic.](#)

- An impact assessment study suggest that the [combination of public behavioural changes and non-pharmaceutical interventions](#) (including border restrictions, quarantine, isolation, and distancing) were associated with reduced transmission of COVID-19 in Hong Kong.

Others

- China's reported death toll from the coronavirus has jumped sharply, after a review of records for the city of Wuhan, adding another [1,300 fatalities to its official count and bringing China's overall death toll to more than 4,600](#). Chinese officials said the revision included the addition of deaths of people at home and at medical institutions that weren't reporting data to its epidemic network.
- Autopsy reports of three people who died in California between 6 February and 6 March have now been confirmed as COVID-19 deaths, suggesting that the [first US COVID-19 death may have occurred more than three weeks before the first reported death](#) occurred in Washington state.

D. Related Public Health Policy

Contents of this section include only publicly announced public health policies. Sources of this section include official government communique, embassy alerts and press search.

Africa

- This week additional Member States **extended their lockdowns and closure of all schools** including [Cameroon](#), [Congo](#), [Liberia](#), [Morocco](#), [Sao Tome and Principe](#), [Tunisia](#).
- Some Member States allowed **partial reopening of the economy and allow extra hour of movement** including [Algeria](#), [Egypt](#), [Nigeria](#), [South Africa](#).
- [Botswana](#) has received a donation of medical supplies for 2nd time from the Jack Ma Foundation. [The country](#) will deport an additional 500 Zimbabwean after experiencing hardships due to firm coronavirus restrictions imposed by authorities including a 28-day-lockdown and declaring a six-month state of emergency.
- [Burkina Faso](#) armed forces has launched large operation to produce masks for schoolboys and teachers as part of measures to fight against the COVID-19.
- [Cameroon](#) has ordered the production of the drug chloroquine to treat COVID-19 patients. The country has started producing 6,000 tablets per day and expects to drastically increase production when they get some more ingredients from China.
- [Ethiopia](#) has limited private vehicles with odd or even plate numbers from roads on alternate days.
- [Ghana](#) has implemented the three months' tax relief granted to all health workers with additional allowance of 50% of their basic salary per month for the period. [The country](#) is also using delivery drones from US-based startup Zipline to enable it to test people more quickly outside major cities for COVID-19.
- [Kenya](#) will begin intensifying enforcement curfews. [Mandera](#) County has been placed **on lockdown** due to escalation of community based infections and classification of the county as an infected area.
- [Malawi's](#) high court has temporarily barred the government from implementing a 21-day lockdown to curb coronavirus following a petition by a human rights group. [The country](#) has introduced online learning to provide free access education content for students.
- [Nigeria](#) has decided to discharge inmates with no confirmed criminal cases against them, as well as elderly prisoners and those who were terminally ill.

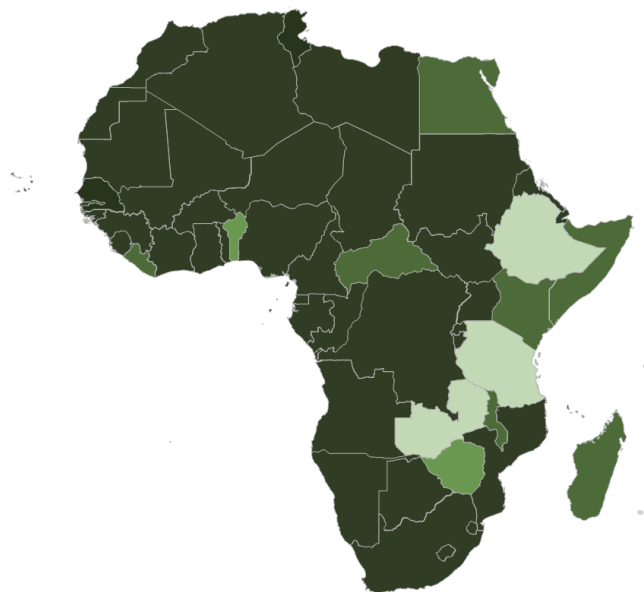
- [Rwanda](#) has pledged \$1 million to on-going efforts in Africa aimed at tackling the continent's COVID- 19 outbreak
- [South Africa](#) has announced a \$26bn relief package to shore up the economy and support people in need during the coronavirus pandemic
- [Uganda and Rwanda](#) have received a German-funded mobile virus testing lab which is donated for the six countries of the East African Community (EAC) region.
- [Member States get approval for financial support from The World Bank](#);- Central African Republic (\$7.5M), Congo Republic (\$11.3M), eSwatini (\$6M), Niger (\$13.95M), South Sudan (\$7.6M).
- [The Jack Ma and Alibaba Foundations](#) will make a third donation of medical equipment to the African Union (AU) and Africa Centres for Disease Control and Prevention to assist African nations in the fight COVID-19.

Rest of World

- In addition to African countries, other [countries have started easing their lockdowns](#) e.g. Austria, Iraq, Dubai, Israel, Iran, New Zealand, Saudi Arabia,
- While others chose to [extend lockdown, closing of schools and/or curfew](#) e.g. Croatia, Greece, Honduras, Indonesia, Kuwait, Poland, Uzbekistan.
- [The US Senate](#) has approved legislation worth \$484bn to provide funding for a small business jobs programme, hospitals overrun by the coronavirus outbreak, and a national testing impetus to help tamp down the pandemic.
- [Italy](#) plans for the gradual reopening from a lockdown imposed to fight the coronavirus emergency that will be applied starting from 04 May 2020.
- [China](#) has ordered that anyone in Wuhan working in certain service-related jobs must take a coronavirus test if they want to live in the city. [Hong Kong](#) has extended its coronavirus restrictions by 14 days.
- [UK](#) will expand testing to cover all key workers such as teachers, government employees and delivery drivers. [The country's](#) engineering, aerospace, automotive and Formula One companies have joined forces to produce ventilators with the aim of building more than 1,500 per week.
- [Canada](#) has announced that all airline passengers would be required to wear a non-medical mask or face covering during travel.
- [Pakistan](#) is using a contact tracing system - developed by its intelligence services to combat terrorism - to fight the coronavirus.
- The Indianapolis University School of Medicine has [launched a first of its kind screening study in US to track asymptomatic COVID-19 patient](#).
- An analysis of 2.8 million tweets identified 12 topics, which were grouped into four main themes: origin of the virus; its sources; its impact on people, countries, and the economy. Results suggest the [highest tweet topics were increased racism and economic losses](#) while the lowest was travel bans and warnings. Highlighting the need for a more proactive and agile public health presence on social media to combat the spread of fake news.

E. Summary of travel restrictions implemented by Member States

Contents of this section include only publicly announced public health policies. Sources of this section include official government communique, embassy alerts and press search.



- 1 Some countries still allow cargo, freight and emergency transport into and out of the country; Some MSs will still allow citizens and residents to enter but all borders are essentially closed
- 2 Banning entry or exit of citizens or suspending visa issuance to specific countries

For further detailed information for each country, refer to the full table [here](#).

F. Summary of physical distancing measures implemented by Member States

Contents of this section include only publicly announced public health policies. Sources of this section include official government communique and press search. (as of 24 Apr 2020)



of Member States that ■ Have implemented ■ Have not implemented

*Source of information based on official reports, embassy alerts and press scanning

For further detailed information for each country, refer to the full table [here](#).

G. Clinical Trials for COVID-19

- 19th April 2020, the WHO released an outline for [an international randomised trial for candidate vaccines against COVID-19](#) to coordinate prompt, efficient, and reliable evaluation of the many preventive candidate SARS-CoV-2 vaccines under development, to assess their safety and efficacy and to identify those that are likely to be appropriate for deployment to influence the course of the pandemic.
- 20th April 2020, a policy brief on [Ethics and COVID-19: resource allocation and priority-setting was published](#), to provides a high-level ethical framework that can be used to guide decision-making, and complements WHO's technical guidance.
- 23th April 2020, the WHO [Draft landscape of COVID 19 candidate vaccines](#) (with 6 candidate vaccines in clinical evaluation and 77 candidate vaccines in preclinical evaluation) was updated.
- 24th April 2020, WHO together with group of global health actors (BMGF, CEPI, Gavi, Global Fund, UNITAID, Wellcome Trust) launched the [ACCESS TO COVID-19 TOOLS \(ACT\) ACCELERATOR](#) a global and time-limited collaboration to accelerate the development, production and equitable global access to new COVID-19 essential health technologies.
- The US FDA issued [a drug safety communication](#) cautioning against use of hydroxychloroquine or chloroquine for COVID-19 outside of the hospital setting or a clinical trial due to risk of heart rhythm problems.
- In Africa, Egypt is leading the way with 13 clinical trials currently underway evaluating a wide range of interventions: drugs, convalescent plasma, repurposed vaccines (BCG and MMR) to treat or prevent COVID-19.

List of registered interventional clinical trials in Africa

Location	Name	Interventions	Sponsor/Collaborators	Phase	Enrolment Target	Start date
Egypt	Administration of Chlorpromazine as a Treatment for COVID-19	Drug: Chlorpromazine Injection	Cairo University	I/II	60	May 2020
	Efficacy of Faviprevir in COVID-19 Treatment	Drug: Favipiravir Drug: Placebos	Tanta University	II/ III	40	17 April 2020
	Angiotensin Converting Enzyme Inhibitors in	Drug: ACEIs Drug: Conventional treatment	Tanta University	III	60	15 April 2020

Treatment of Covid 19					
A Real-life Experience on Treatment of Patients With COVID 19	<i>Drug: Chloroquine Drug: Favipiravir Drug: Nitazoxanide Drug: Ivermectin Drug: Niclosamide</i>	Tanta University	II/ III	100	15 April 2020
The Efficacy of Ivermectin and Nitazoxanide in COVID-19 Treatment	<i>Drug: Chloroquine Drug: Nitazoxanide Drug: Ivermectin</i>	Tanta University	II/ III	60	17 April 2020
Efficacy of Natural Honey Treatment in Patients With Novel Coronavirus	<i>Dietary Supplement: Natural Honey Other: Standard Care</i>	Misr University for Science and Technology	III	1,000	25 March 2020
PRA-001: Plasma Rich Antibodies From Recovered Patients From COVID19	<i>Other: Antibody-Rich Plasma from COVID-19 recovered patients</i>	Ain Shams University	NA	20	20-Apr-2020
FAV-001: Efficacy and Safety of Favipiravir in Management of COVID-19	<i>Drug: Favipiravir Drug: Standard of care therapy</i>	Ain Shams University	III	100	20-Apr-2020

	Levamisole and Isoprinosine in Immune-prophylaxis of Egyptian Healthcare Workers Facing COVID-19	<i>Drug:</i> Levamisole <i>Drug:</i> Isoprinosine <i>Drug:</i> Levamisole and Isoprinosine	Ain Shams University	III	100	20-Apr-2020
Nigeria and Pakistan	CRASH-19: Coronavirus Response - Active Support for Hospitalised Covid-19 Patients	<i>Drug:</i> Aspirin <i>Drug:</i> Losartan <i>Drug:</i> Simvastatin	London School of Hygiene and Tropical Medicine	III	10,000	April 2020
South Africa, Zambia and 11 other countries outside Africa	CROWN CORONA : CROWN CORONATION: Chloroquine Repurposing to healthWorkers for Novel CORONAvirus mitigaTION	<i>Drug:</i> Low-dose chloroquine/hydroxychloroquine <i>Drug:</i> Mid dose chloroquine or hydroxychloroquine <i>Drug:</i> High does chloroquine or hydroxychloroquine <i>Drug:</i> Placebo	Washington University School of Medicine Bill and Melinda Gates Foundation	III	55,000	April 2020
South Africa	SOLIDARITY: Public health emergency SOLIDARITY trial of treatments for COVID-19 infection in hospitalized patients	Local standard of care alone <u>OR</u> Local standard of care plus one of: 1. Remdesivir 2. Chloroquine or hydroxychloroquine 3. Lopinavir + ritonavir 4. Lopinavir + ritonavir plus interferon-beta	WHO	III	10,000	01 March 2020

Tunisia	Assessment of the Efficacy and Safety of (HCQ) as a Prophylaxis for COVID19 for Health Professionals	<i>Drug:</i> Hydroxychloroquine <i>Drug:</i> Placebo oral tablet	Abderrahmane Mami Hospital	III	530	15 April 2020
	COVID+PA: Assessment of Efficacy and Safety of HCQ and Antibiotics Administrated to Patients COVID19(+)	<i>Drug:</i> Hydroxychloroquine <i>Drug:</i> Azithromycin	Abderrahmane Mami Hospital Eshmoun Clinical Research Centre	IV	400	15 April 2020