**Force Health Protection Branch NATO MilMed COE** Munich



# Short Update 25a COVID-19 **Coronavirus Disease** 26th of JUNE 2020



### info.dhsc@coemed.org

**Branch Chief** Phone: +49 89 1249 4003 **Branch Admin** Phone: +49 89 1249 4001

### **GLOBALLY**

9 410 187

**Confirmed cases** 4 757 993 recovered 482 986 deaths

# **USA**

(new cases/day 32 529)

2 414 940

confirmed cases 663 305 recovered 124 249 deaths

### Brazil

(new cases/day 33 322)

1 228 114

confirmed cases

679 524 recovered 54 971 deaths

## Russia

(new cases/day 7 547)

613 148

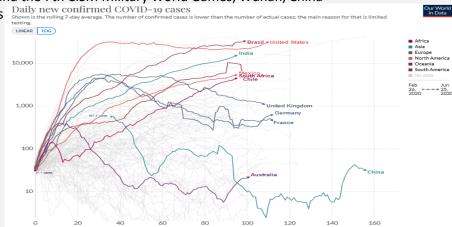
confirmed cases 374 557 recovered 8 594 deaths

#### News:

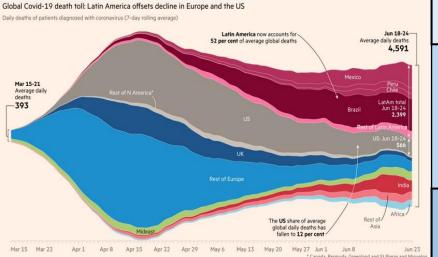
- The government of the Democratic Republic of the Congo declared on Thursday the 25<sup>th</sup> the end of the country's 10<sup>th</sup> outbreak of Ebola virus disease. Many of the public health measures that have been successful in stopping Ebola remaining essential for suppressing COVID-19.
- EMA: The European Medicines Agency EMA has given the green light for an active ingredient for corona therapy in the EU for the first time. Patients should be allowed to be treated with Remdesivir under certain conditions (see Global Situation).
- University of Insbruck: A population-based study on molecular and serological evidence of SARS-CoV-2 in Ischgl showed that 42.4 percent of the citizens examined in a comprehensive study developed antibodies to the coronavirus (see Global Situation).
- Find Articles and other materials about COVID-19 on our website here
- Please use our online observation form to report your lessons learned observations as soon as possible here

#### Topics:

- Subject in Focus South Africa to start continent's first coronavirus vaccine pilot
- COVID-19 and the 7th CISM Military World Games, Wuhan, China
- In the press







# **EUROPE**

2 511 864 confirmed cases

1 418 423 recovered 194 126 deaths

# UK

(new cases/day 1 073)

307 980 confirmed cases

-not reported- recovered

43 230 deaths

## **SPAIN**

(new cases/day 317)

247 486

confirmed cases 150 376 recovered 28 330 deaths

## **ITALY**

(new cases/day 221)

239 706 confirmed cases

186 725 recovered 34 678 deaths

# **Global Situation**

### Preliminary results about dexamethasone use in treating critically ill COVID-19 patients

The European Medicines Agency EMA has given the green light for an active ingredient for corona therapy in the EU for the first time.

According to the recommendation, certain COVID-19 patients should be allowed to be treated with Remdesivir under certain conditions, as the EMA announced in Amsterdam on Thursday. The EU Commission still has to agree, but this is a matter of form.

The Commission's decision is expected to be made next week, according to the EMA. The EMA recommendation applies to the treatment of adults and adolescents from the age of 12. A prerequisite for treatment is that the patient has pneumonia and must be supplied with additional oxygen.

#### Population-based study on molecular and serological evidence of SARS-CoV-2 in Ischgl

In Ischgl, Austria, a large part of the population was infected with the corona virus. According to the <a href="Innsbruck Medical University">Innsbruck Medical University</a>, 42.4 percent of the citizens examined in a comprehensive study developed antibodies to the coronavirus. That is the highest value published worldwide, said the director of the Institute of Virology, Dorothee von Laer, on Thursday in Innsbruck. Antibodies in the blood are considered to be evidence of a recent infection.

Ischgl with its après-ski bars is the focal point for the spread of the corona virus in Austria and parts of Europe. According to Austrian authorities, 40 percent of all domestic cases were attributable to Ischgl. They also believe that many German tourists have been infected in Ischgl.

It is striking that only 15 percent of those who tested positive for antibodies had previously been diagnosed with infection by PCR, said von Laer. "85 percent of those who went through the infection went through this unnoticed." Despite the high antibody level, herd immunity was not achieved even in Ischgl. Quarantine and social distance were decisive for the decline in cases, it said. Around 80 percent of the Ischgl population took part in the study. 1473 subjects were examined between April 21 and 27.

Using a questionnaire, the study was also able to draw careful conclusions about the course of the infection. The majority of the seropositively tested study participants reported taste and smell disorders, followed by fever and cough. The infection was mostly asymptomatic among the seropositively tested children. Only nine adults among the study participants had to be treated in the hospital.

The study also focused on the application safety of the test methods for the detection of antibodies. The scientists established a three-step procedure with maximum sensitivity and practically 100 percent specificity, as a new test strategy. Two highly sensitive ELISA tests were used, the negative results of which were assessed as finally negative. Consistently positive results were assessed as "evidence of past infection with SARS-CoV-2". If only one ELISA was positive and the other negative, a neutralization test was carried out for further clarification.

### Easing lock down measures in GBR

Despite the corona pandemic, tens of thousands of Britons stormed the coast in the south of their country on Thursday. In

Bournemouth, the forces even had to trigger a "serious incident"

because the situation was no longer manageable. Emergency services complained about illegal parking, traffic collapse, garbage pollution, aggressive behavior of beach visitors and alcohol abuse at high temperatures.

#### **COVID-19 USA**

The United States has had the highest level of new coronavirus infections since late April. Around 34,700 new infections were detected within one day on Tuesday. It was the highest since the end of April and the third highest daily value since the pandemic started. Anthony Fauci described the development, especially in Florida, Texas and Arizona, as "worrying".

California hospital occupancy has increased nearly 30 percent from two weeks ago, Governor Gavin Newsom said on Wednesday. He called on the nearly 40 million residents to stay at home, keep their distance and wear masks if possible. The intensive care beds of hospitals in the Texas metropolis of Houston are now 97 percent full, said Mayor Sylvester Turner, according to the "New York Times". Around a quarter of these patients are infected with the coronavirus. "I have a strong feeling that we are moving in the wrong direction - and we are moving quickly."

According to estimates by the CDC, around ten times more people in USA are infected with the coronavirus than previously known.

### **Corona cluster in Germany**

After the massive Corona outbreak in a DEU meat business, public life in two provinces in North Rhine-Westphalia federal state is again restricted. At Thursday, strict conditions again came into force. A total of around 640,000 residents are affected.

In the public space, only two people or people from a family or household group can now meet, as the state government announced on Tuesday. In addition, a number of leisure activities must be avoided. For example, museums, cinemas, gyms, indoor swimming pools and bars have to be closed - initially for a week until June 30.

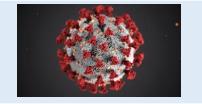
After the Corona outbreak in the DEU meat factory, the Austrian Foreign Ministry is warning its citizens against trips to North Rhine-Westphalia. The "partial travel warning (security level 5)" applies, according to the website of the ministry. Different other German federal states also remitted bans for tourist from the affected province.

The province of Gütersloh started voluntary mass tests in 2521 persons, until today 1655 results are available. One of them is clearly positive, two are weakly positive. So there are three positive cases in the general population.

### **Subject in Focus**

## **COVID-19 Vaccine development**

### South Africa to start continent's first coronavirus vaccine pilot



African country with highest number of confirmed COVID-19 infections to begin trial of vaccine involving 2,000 people. South Africa plans to roll out the continent's first coronavirus vaccine trial this week, according to the university leading the pilot, as the country grapples with the highest number of coronavirus cases in Africa.

The vaccine candidate, developed by the Oxford Jenner Institute in the United Kingdom, is already being evaluated there, where 4,000 participants have signed up for the trial.

In South Africa, the University of Witwatersrand (Wits) is collaborating with the University of Oxford and the Oxford Jenner Institute in the trial of the vaccine known as ChAdOx1 nCoV-19. The pilot will involve 2,000 people, including 50 who have HIV. "We began screening participants for the South African Oxford 1 COVID-19 vaccine trial last week, and the first participants will be vaccinated this week," Wits vaccinology professor Shabir Madhi told a virtual news conference.

South Africa's coronavirus cases jumped to more than 100,000 on Monday, while the number of related deaths approached 2,000. South Africa enter the wintertime and expected a peak of COVID-19 patients during the cold winter months.

More than 3,500 doctors and nurses in the country have contracted COVID-19, the highly infectious disease caused by the novel coronavirus, since the start of the pandemic, and at least 34 have succumbed to the respiratory disease.

Madhi describing the vaccine trial as a "landmark moment". At the opening of a field hospital in the Eastern Cape province, Mkhize said on Tuesday there were now more than 27,000 beds for COVID-19 patients and more than 400 quarantine sites across the country.

The new field hospital was built in collaboration with the German development agency and carmaker Volkswagen (VW) - the largest German investment in South Africa.

Source: <a href="https://www.aljazeera.com/news/2020/06/south-africa-start-continent-coronavirus-vaccine-pilot-200623162759120.html">https://www.aljazeera.com/news/2020/06/south-africa-start-continent-coronavirus-vaccine-pilot-200623162759120.html</a>

### Phases to develop vaccines

Pre-clinical trials : in vitro → in vivo (animals)

#### Phase I:

Assessment of safety and preliminary dosing With a few dozen of healthy subjects, no control group.

#### Phase II:

Assessment of immunogenicity and adverse effects, determination of dose levels

Typically randomized, placebo-controlled, and at multiple sites, with hundreds of people at risk of infection

### Phase I – II:

Safety and immunogenicity, effective doses determination

Typically randomized, placebo-controlled, and at multiple sites, with hundreds of people at risk of infection

### Phase III:

Effectiveness of the candidate vaccine to prevent the disease, while monitoring for adverse effects at the optimal dose, effect duration, booster
With thousands of people, including a control group

Health authorities (FDA, EMA) review and approval

Phase IV: post-market safety monitoring

# According to World Health Organization 128 candidate vaccines in preclinical evaluation; 13 candidate vaccines in clinical evaluation

# DRAFT landscape of COVID-19 candidate vaccines – 18 June 2020

#### 13 candidate vaccines in clinical evaluation

Platform	candidate vaccine	Developer	target	evaluation/regulatory status- Coronavirus candidate	non-Coronavi candidates
Non- Replicating Viral Vector	ChAdOx1-S	University of Oxford/AstraZeneca	SARS-CoV2	Phase2b/3 2020-001228-32 Phase 1/2 2020-001072-15	MERS, influenz TB, Chikunguny Zika, MenB, pla
Non- Replicating Viral Vector	Adenovirus Type 5 Vector	CanSino Biological Inc./Beijing Institute of Biotechnology	SARS-CoV2	Phase 2 ChiCTR2000031781 Phase 1 ChiCTR2000030906	Ebola
RNA	LNP- encapsulated mRNA	Moderna/NIAID	SARS-CoV2	Phase 2 NCT04405076 Phase 1 NCT04283461	multiple candid
Inactivated	Inactivated	Wuhan Institute of Biological Products/Sinopharm	SARS-CoV2	Phase 1/2 ChiCTR2000031809	
Inactivated	Inactivated	Beijing Institute of Biological Products/Sinopharm	SARS-CoV2	Phase 1/2 ChiCTR2000032459	
Inactivated	Inactivated + alum	Sinovac	SARS-CoV2	Phase 1/2 NCT04383574 NCT04352608	SARS
Protein Subunit	Full length recombinant SARS CoV-2 glycoprotein nanoparticle vaccine adjuvanted with Matrix M	Novavax	SARS-CoV2	Phase 1/2 NCT04368988	RSV; CCHF, HPV VZV, EBOV
RNA	3 LNP-mRNAs	BioNTech/Fosun Pharma/Pfizer	SARS-CoV2	Phase 1/2 2020-001038-36 NCT04368728	
Inactivated	Inactivated	Institute of Medical Biology , Chinese Academy of Medical Sciences	SARS-CoV2	Phase 1 NCT04412538	
DNA	DNA plasmid vaccine with electroporation	Inovio Pharmaceuticals	SARS-CoV2	Phase 1 NCT04336410	multiple candid
Non- Replicating Viral Vector	Adeno-based	Gamaleya Research Institute	SARS-CoV2	Phase 1	
RNA	saRNA	Imperial College London	SARS-CoV2	Phase 1	EBOV; LASV, M Inf (H7N9), RAE
RNA	mRNA	Curevac	SARS-CoV2	Phase 1	RABV, LASV, YF MERS, InfA, ZIK DENV, NIPV

 $Source: \underline{https://www.who.int/publications/m/item/draft-landscape-of-covid-19-candidate-vaccines}$ 



### **COVID-19 and the 7th CISM Military World Games, Wuhan, China**

Report by the Swedish Defence Research Agency (FOI)

On April 15 2020 the Swedish newspapers published an article stating that soldiers could have been infected with SARS-CoV-2 while participating in the Military Games in Wuhan, China in October 2019. That is, several months before the virus outbreak officially started. Eleven men and women represented the Swedish Armed Forces in Wuhan. According to the newspaper and the region's chief medical officer for infectious disease control, several participants, including some family members, had experienced "mysterious and serious" disease symptoms after returning from China. However, it was only around new-year 2019/2020 that the regiment medical officer was informed that several of the participants had exhibited symptoms similar to the coronavirus.

The symptom that was reported was flu-like symptoms, such as severe cough, headache and fever as well as in some cases severe respiratory symptoms upon return to Sweden. Some persons showed symptoms even before leaving China.

No hospital admissions or ICU treatment was needed, but several individuals, including some family members, needed to contact primary care for their symptoms. No known underlying symptoms were identified in the previously healthy individuals, ranging from 20-45 years of age. However, some persons could not reengage in physical training for over a month after recovery, due to fatigue.

The newspaper also reported that other regiments in the South of Sweden had cases with flu-like symptoms among persons participating in the military games. Other news outlets reported on the issue and claimed that one, of the five tested persons at that time, had a weak, thus ambiguous, positive result for COVID-19.

April 30 2020, they however reported that of the eight blood samples taken from I 19 participants, and their relatives, all had tested negative for COVID-19 antibodies.

#### MedIntel request

In order to investigate if similar symptoms had been observed in other nations participant's as well, Swedish MedIntel reached out to the international MedIntel network with a request through email on April 28.

Seven nations that participated in the military games responded. Six of those had no known cases of persons with flu-like or coronavirus-like symptoms. One nation reported that some participant's had symptoms. Ten persons were tested for COVID-19 antibodies with negative result.

Several French athletes claim that they were infected by the coronavirus during their stay in Wuhan because they became ill with flu-like symptoms. This information is rejected by the French Armed Forces. According to French media, COVID-19 were present in Alsace already in mid-November and in other French cities in December 2019.

More athletes claim they contracted COVID-19 at Military World Games in Wuhan







More athletes have revealed that they fell ill during the Military World Games in October when the Chinese city of Wuhan hosted the event months before the

Taking place in October, the allegations came two months before the first identification of

Speaking to the Mail on Sunday, German volleyball player Jacqueline Brock alleged that she got COVID-19 despite

Close to 10,000 competitors competed at the Games from over 100 countries during the nine-day event

She said: "After a few days, some athletes from my team got ill. I got sick in the last two days

"I have never felt so sick, either it was a very bad cold or COVID-19, I think it was COVID-19."

#### Misinformation and disinformation

Massive misinformation and disinformation occurred about the military game's connection to the outbreak of COVID-19. For instance, according a Chinese diplomat, an American athlete participating in the games was the patient Zero that "brought the epidemic to Wuhan", something he tweeted about on March 22.

During the games, rumours also circulated on social media that five of the participating athletes become ill and were treated for COVID-19 at a local hospital in Wuhan. This information was rejected by the hospital, which claims that the athletes were treated for malaria instead.

In the US, the American conspiracy theorist George Webb claimed via his YouTube channel that "patient Zero" was an US Army reservist who participated in the military games. The allegations fuelled hate and threats in social media against the athlete and her spouse

#### Assessment

It is unlikely that soldiers were infected with coronavirus in Wuhan. Around the time of the military games, seasonal flu started to increase in Asia and those who had symptoms could have been affected by upper respiratory tract illnesses or even influenza.

Massive misinformation and disinformation have occurred about the military game's connection to the outbreak of COVID-19. It is possible that there is a tendency in e.g. China to imply that international participants in the military games have had a role in the spread of the disease.



#### **About the CISM Military World Games**

The CISM Military World Games is operated by the **International Military Sports Council** (IMSC), as an event organized without political or sectarian motives and held in the interest of advancing peace. The Military World Games was inaugurated in 1995 and is arranged every fourth year. The Wuhan games was its seventh iteration, gathering around 9000 athletes from around the world.

The games took place from October 18 to October 28, 2019.

## In the press

This section aims at summarizing trending headlines with regards to COVID-19. The collection does not aim at being comprehensive and we would like to point out that headlines and linked articles are no scientific material and for information purposes only. The headlines and linked articles do not reflect NATO's or NATO MilMed COE FHPB's view. Feedback is welcome!

24th June 2020

The Guardian

How will the world's poorest people get a coronavirus vaccine?

https://www.theguardian.com/commentisfree/2020/jun/24/worlds-poorest-people-coronavirus-vaccine-gavi

24th June 2020

Aljazeera

Coronavirus testing may not reach women in conflict zones: IRC

https://www.aljazeera.com/news/2020/06/coronavirus-testing-reach-women-conflict-zones-irc-200624071117644.html;

25th June 2020

**South China Morning Post** 

Coronavirus: face masks save lives, Japanese study says

https://www.scmp.com/news/china/science/article/3090440/coronavirus-face-masks-save-lives-japanese-study-says

24<sup>th</sup> June 2020

**Deutsche Welle** 

Coronavirus may trigger debt emergency across Africa, new study finds

https://www.dw.com/en/coronavirus-may-trigger-debt-emergency-across-africa-new-study-finds/a-53923688

25th June 2020

**Financial Times** 

Human genetics provides clues about mysteries of coronavirus

https://www.ft.com/content/50006fa2-f99c-4da8-b817-abb2379565ce

24th June 2020

**Los Angeles Times** 

How an Indian slum became an unlikely COVID-19 success story

https://www.latimes.com/world-nation/story/2020-06-24/dharavi-slum-in-mumbai-india-contained-covid-19

23<sup>rd</sup> June 2020

Aljazeera

South Africa to start continent's first coronavirus vaccine pilot

https://www.aljazeera.com/news/2020/06/south-africa-start-continent-coronavirus-vaccine-pilot-200623162759120.html

21st June 2020

**South China Morning Post** 

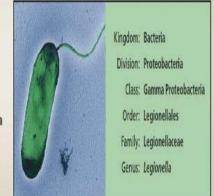
Coronavirus: recovered Chinese patients may be defenceless against foreign mutation, study says

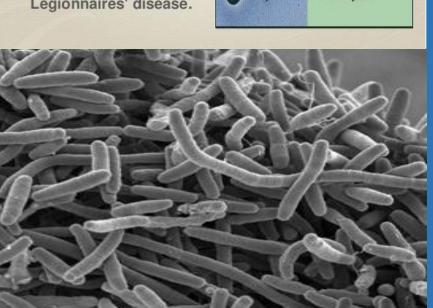
https://www.scmp.com/coronavirus/greater-china/article/3089983/coronavirus-recovered-chinese-patients-may-be-defenceless

# Reopening Buildings After Prolonged Shutdown or Reduced Operation

# Legionella pneumophila

\* Legionella pneumophila is a thin, aerobic, pleomorphic, flagellated, non-spore forming, Gram-negative bacterium of the genus Legionella. L. pneumophila is the primary human pathogenic bacterium in this group and is the causative agent of legionellosis or Legionnaires' disease.





Many facilities have been unoccupied in recent months due to the COVID-19 crisis. As a result, the drinking water from the water pipes was also not used and stagnated in the pipes for a long time.

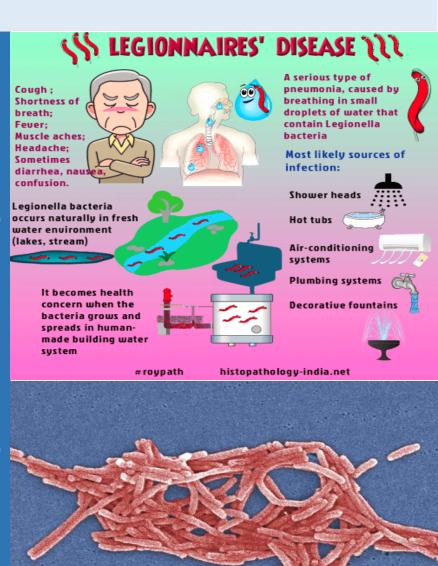
This can lead to increased Legionella growth. The infection can lead to pneumonia, infection routes can be showers or aerosols from taps. Large drinking water systems with extensive pipe systems, existing deposits (sediments in hot water tanks, limescale deposits) and the biofilm in the pipes (a slime-like matrix of microorganisms and organic substances) offer Legionella with their special nutritional requirements an optimal basis of life.

#### Please note:

In the current situation, services should therefore - in addition to the many other aspects - also ensure the flawless operation of the drinking water system in their buildings and consider the necessary technical measures to minimize the risk of infection before reopening. The measures before restarting a drinking water system are described in many national technical regulations.

Develop a comprehensive water management program (WMP) for your water system and all devices that use water. Guidance to help with this process is available from CDC and others. <a href="https://www.cdc.gov/coronavirus/2019-ncov/php/building-water-system.html">https://www.cdc.gov/coronavirus/2019-ncov/php/building-water-system.html</a>

https://www.who.int/news-room/factsheets/detail/legionellosis



# **Current plans to re-open borders**

