

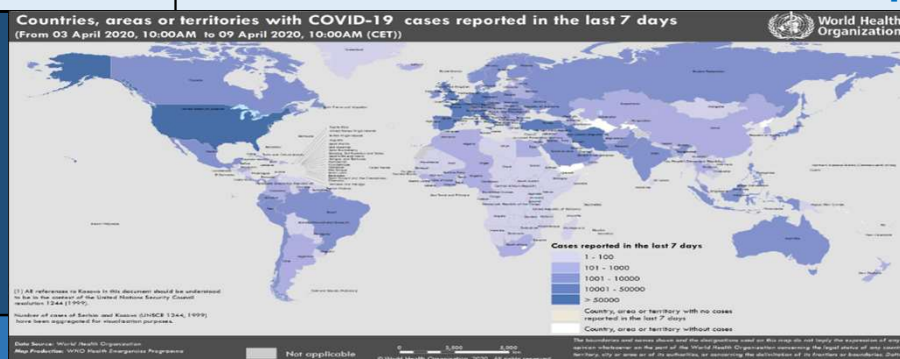


Short Update 14b COVID-19 Coronavirus Disease 10th of April 2020



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- ## News:
- One new countries/territories/areas reported cases of COVID-19 since the last update: Saint Pierre and Miquelon.
 - 9 April marks 100 days since WHO was notified of the first cases of “pneumonia with unknown cause” in China.
 - WHO** has published a guidance document on the rational use of personal protective equipment (PPE) in healthcare and home care settings, as well as during the handling of cargo. The document assesses the current disruption in the global supply chain and outlines considerations for decision-making during severe shortages of PPE. For more details, please see [here](#).
 - ECDC** mentioned in his eighth update to the COVID-19 pandemic that maybe recently, in a few EU/EEA countries, the number of new cases and new deaths reported daily have decreased slightly. However, many countries are currently only testing severe or hospitalised cases, therefore these trends should be interpreted with caution. **There is currently no indication at EU/EEA level that the peak of the epidemic has been reached.** Only a combination of stringent measures can achieve meaningful reductions in transmission. See full update [here](#).
 - ECDC also published a guidance for planning discharge and ending isolation for COVID-19 patients in the context of the phase of ongoing widespread community transmission. You find the document [here](#).
 - Find Articles and other materials at <https://www.coemed.org/resources/COVID19>

Risk Assessment

EUROPE

- * The risk for importing/exporting the virus into/from Europe is currently high.
- * The risk of severe disease associated with COVID-19 infection is currently considered moderate for the general population and high for older adults and individuals with chronic underlying conditions. In addition, the risk of milder disease, and the consequent impact on social and work-related activity, is considered high.
- * The risk of the occurrence of subnational community transmission of COVID-19 is currently considered very high.
- * The risk of occurrence of widespread national community transmission of COVID-19 in the coming weeks is high.
- * The risk of healthcare system capacity being exceeded in the coming weeks is considered high.

GLOBALLY

- * The risk for people travelling/resident in affected provinces with ongoing community transmission is currently very high.

EUROPE
821 375
confirmed
cases
66 732 death

ASIA
&
Western
Pacific Region
129 330
confirmed
cases
4 622 death

Eastern
Mediterranean
Region
88 587
confirmed
cases
4 607 death

AMERICAS
REGION
553 999
confirmed
cases
19 380 death

AFRICA
8 925
confirmed
cases
394 death

GLOBALLY

1 602 216
Confirmed cases

208
countries/regions
95 735 death

USA

465 009
confirmed cases
16 647 death

ITALY

143 626
confirmed cases
18 279 death

SPAIN

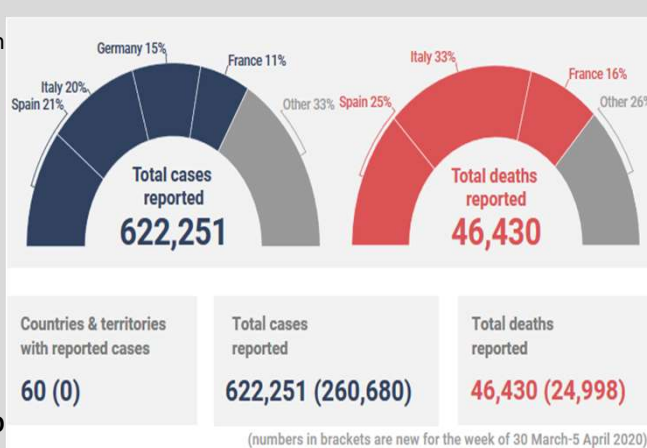
153 222
confirmed cases
15 447 death

Situation in Europe

- EU will prolong their travel ban until 15 May.
- ECDC:** Despite the fact that the number of newly infected and deaths is decreasing in Italy and Austria, there are currently no signs at EU level that the peak of the epidemic has been reached. In the current situation, a strong focus should remain on comprehensive testing and surveillance strategies (including contact tracing), community measures (including physical distancing), strengthening of healthcare systems and informing the public and health community. And the promotion of mental wellbeing.
- The recommended diagnostic test method for SARS-CoV-2 infection is viral RNA detection with nucleic acid amplification tests (NAAT), such as RT-PCR. Rapid tests may provide results in short time, they are relatively simple to perform and interpret. However information on their clinical performance is still limited.
- Most of the new cases in the EU/EEA and the UK have been reported in Spain (95359; 25.3% of total new cases in EU/EEA/UK), Germany (n=67671; 17.9%), Italy (63371; 16.8%) and France (52088; 13.8%), as of 7 April 2020.
- Doubling of cases: FRA/USA/GBR: 7 days; DEU/ESP: 15 days; ITA: 24 days.

- ITA and ESP** there is currently a decline in reported number of new infections.
- GBR:** The number of deaths from the coronavirus pandemic has continued to increase dramatically. 938 new deaths were recorded within 24 hours.
- GRE:** Situation within refugees camps is still evolving.
- FRA:** Despite a flattening of the epicurve FRA records around 10,000 deaths. In between 24 hours 607 fatalities have been reported. Regulation and restrictions will be tightened by the government.

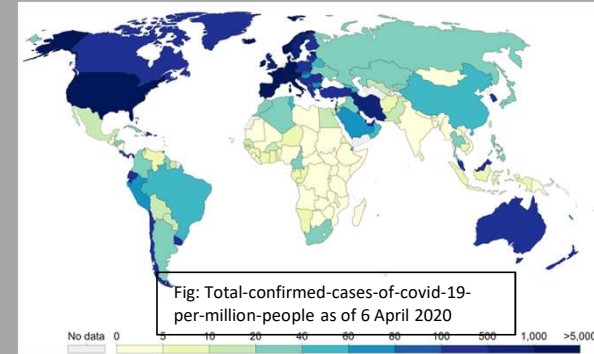
Source: WHO



Country	Confirmed case (Over 15 000 cases)	Deaths
USA	465 009	16 647
Spain	153 222	15 447
Italy	143 626	18 279
Germany	118 235	2 607
France	117 749	12 210
China	81 906	3 336
Iran	66 220	4 110
Great Britain	65 077	7 978
Turkey	42 282	908
Belgian	24 983	2 523
Switzerland	24 051	948
Niederlande	21 762	2 396
Canada	20 734	508
Brasil	18 176	957

Global Situation

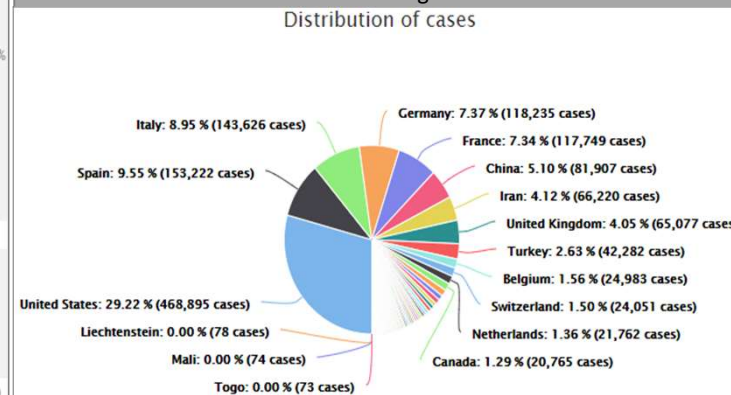
- Globally case numbers still increasing.
- USA:** 1/3 of all global cases are reported from the US. Steep increase in death rate nearly 4000 new fatalities within the last 48 hours. Afroamerican people seems to be more hit by the disease. Many states lament about the lack of tests.
- BRA:** first reported fatalities due to COVID-19 in residents of the Favelas in Rio. These people are living in worst conditions in very close environment with no sanitary equipment like access to tap water. The economical lock down hits. The president still takes the Virus serious.
- IRA:** starts to de-escalate regulations as of 11 April.
- SGP:** Outbreaks of Covid-19 in seasonal worker camps with rooms manned by up to 12 persons. As of 10 April all travelers have to go under 14 days quarantine.
- KAZ:** despite welland fast implemented countermeasures numbers are rising.



AFRIKA: The COVID 19 outbreak continues to spread across the African continent. 50 reported cases already.

SOM: reported the first fatality due to COVID-19.

China: has moved from the containment phase to the mitigation phase. National restrictions are slowly being relaxed. Travel restrictions which were imposed in Wuhan redeemed on April 8th, 2020 for people with a health certificate ("green health code").



Source: Worldometer

COVID-19 – Facts and figures

The ongoing COVID-19 outbreak raises a lot of questions. One of the most often and most important questions is: „Why are there numerous different numbers of cases and various death rates reported and not only a single comprehensive number and which numbers are reflecting the current situation best?“ This information sheet explains the most important aspects which make providing detailed and accurate information on COVID-19 so difficult at the moment. The focus lies on testing people for COVID-19.

What do the published statistics on numbers of cases and deaths tell us and what don't they tell us?

- **Number of people tested positive for COVID-19** – not the number of actually infected people. This is also depending on the source (see Figure 1). Some sources (e.g. RKI for DEU or WHO) are only counting the number of confirmed cases, whereas others (e.g. Johns Hopkins University) also account for probable cases.
- **Number of fatalities:** In an ideal world this reflects the total number of people who died from COVID-19. In reality everybody is counted as a “COVID-19 fatality” if he/she tested positive for COVID-19 previously – irrespective of COVID-19 being the reason for the death or not. Assessing the „real“ cause for someone's death (COVID-19 or not) is usually not possible, given the current situation and the heavily challenged health system.
- **Case fatality rate (CFR):** The share of cases which died from the disease. In an ideal world this reflects the proportion between the number of all people who died from COVID-19 and the number of all people who were infected with COVID-19. In reality we **only know the number of people who tested positive for COVID-19** and not the real number of people that are/have been infected. The CFR we can calculate is therefore not a final number but varies during the course of the outbreak (even within a single country) Figure 2 (right) shows this exemplarily for various countries. It is driven by the number of tests conducted.

Test for COVID-19

There is no international standard/convention for testing (whom to test). Testing behavior can vary within a single country over time.

The most important aspects are:

- **Who is tested:** Each country issues own criteria to determine whom to test. For example those criteria can be “people showing symptoms”, “probable cases”, “people with reported contact to confirmed cases” or “whole population”. This can be seen as an important reason for the high CFR in Italy: Italy focused on testing old and severely ill people (known for a higher than average CFR).
- **Broad availability:** Not every country has a sufficient number of test kits available. Therefore the data from different countries always carry an unknown imbalance.
- **Reporting chains:** Depending on the reporting chain/route of transmission of information there is a time lag between infection, diagnosis, reporting to public authorities and implementation into official statistics, this can take up to 10 days.

- **Laboratory capacities:** The number of conducted tests is limited by the capacities of laboratories charged with analyzing those tests. This limitation is illustrated by Figure 3 on the right: If laboratory capacity is at analyzing 400 tests per month and 10% of all tests turn out to be positive, we receive accurate numbers as long as the number of tests performed is less than or equal to 400. In this example we receive accurate information on the number of infected (10, 20, 40 respectively) until March. In April the number of performed tests is greater than 400 but the number of positive tests comes to a halt (40 as in March). The real number of infected people is nevertheless still rising but the laboratories are simply unable to analyze all tests. This also holds true in the bigger picture (country level).
- **Number of tests per inhabitant:** The more tests are conducted within a country the closer the results get to reflecting the real number of infected people. If only a few tests are conducted usually severely affected people are tested and subsequently CFR appears to be high. This is (amongst others) the reason for a high CFR in Iran at outbreak start in figure 1. Broad testing allows to identify cases more easily and implement effective mitigation measures. Figure 4 details on selected countries.

Summary

- The Number of tests conducted and the groups that are mainly tested drive CFR.
- The final CFR can only be determined after the pandemic has ended. During the outbreak CFR can only be estimated and varies according to the circumstances

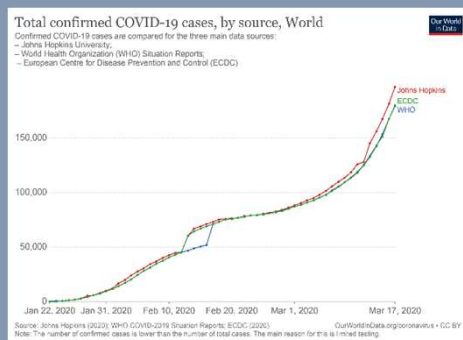


Figure 1: Number of cases globally by source

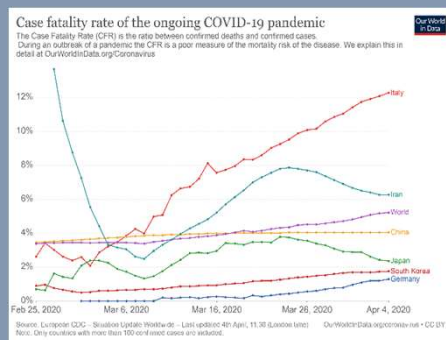


Figure 2: CFR in various countries during the outbreak

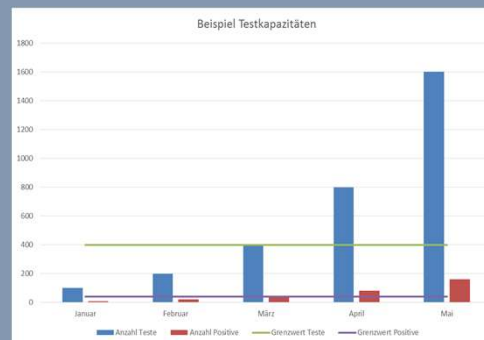


Figure 3: Exemplary illustration of limited laboratory capacities

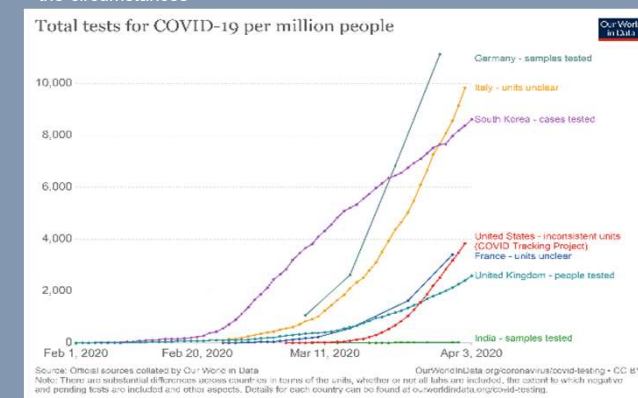


Figure 4: Tests per 1 million inhabitants in various countries

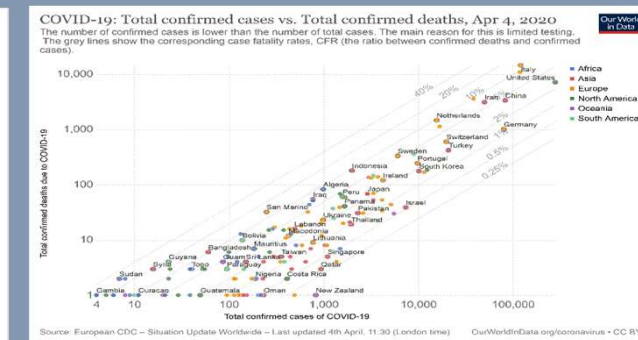


Figure 5: Comparison of confirmed cases and deaths

Figures, Data, Facts

SARS-CoV-19 Epidemiology

Transmission, Period of Incubation, BRR, Immune Reaction

- Transmission:**
- Transmission appears to occur most commonly through infection by droplets. In theory, it is also possible by smear infection and contagion via the conjunctiva.
 - Droplet infection: It may be assumed that transmission occurs mainly by droplets. Epidemiological studies which support this assumption could, however, not yet be identified.
 - Aerosol: no evidence.
 - Smear infection: A transmission by smear infection is not ruled out, in principle; however, it does only play a minor role since chains of infection are often identified which rather indicate that transmission was direct, e. g. by droplets. In COVID-19-patients, PCR-positive stool samples were identified. Contagion via stool requires reproducible viruses. Until now, no such evidence of reproducibility has been reported except for one very small study.
 - Conjunctiva as potential entry: Three (of a total of 63 examined) patients with COVID-19-pneumonia were proved PCR-positive by their conjunctiva samples. This is not considered a clear evidence for the conjunctiva to act as portal; it should still be assumed - especially in the medical area.

- Basic Reproduction (R0):**
- Different studies assume that the rate of secondary infection (basic reproduction R0) resulting from a single case ranges somewhere between 2.4 and 3.3. There were no reports of individual studies which considered higher assessments. This rate may therefore be interpreted that with an R0 of approx. 3 requires that some two thirds of all transmissions must be prevented in order to have control over the epidemic.

- Period of Incubation:**
- The period of incubation is the time from contagion until the onset of the disease. The median time is 5 to 6 days (span of 1 to 14 days).
 - The serial interval is defined by the average interval from the onset of a disease of a contagious case till the onset of the disease of another case infected by the first one. This serial interval is in most cases longer than the period of incubation because contagion will, in general, have occurred only when symptoms start to show. The serial interval in a study with 425 patients produced a median of 7.5, and another one arrived at an assessment of 4 days based on an analysis of 28 infected individuals/pairs of infected.

- Duration of Infectiousness:**
- There are no published data available up to which time following the onset of a disease reproducible viruses are found in the upper respiratory tract. As an alternative, epidemiological data may be used as long as the precise time of infection is known and when the onset of the disease (of the individual causing the infection) is also known.
 - I.a. w. studies: Evidence of viral RNA was indicated up to days 7 to 9 after the onset of the disease, or 13 to 18 days where it was not known for how long reproducible viruses were being released.

- Ability to Survive; Inactivating the Virus on Surfaces:**
- It is known for other corona viruses that on lifeless materials such as metal, glass or plastic they can survive for up to 9 days. Disinfection agents with an efficiency range „limited antiviral agent“ may therefore be employed (Schwebke, BGesBlatt2018).

COVID-10-Diseases

Mortality, Clinics, Mandatory Intensive Care, Risk Factors, Co-Morbidities

- Course of the disease and demographic effects:**
- The courses of diseases are non-specific, manifold and largely varied, ranging from free of symptoms to severe pneumonia including pulmonary failure. This is why no concrete general statements can be made on a „typical“ course. From the cumulated number of cases (n = 55,92 laboratory confirmed; as of February 20, 2020) fever and cough are mostly reported as common symptoms. Approx. 80 % of these cases were mild to moderate. 14 % were severe, but not life-threatening, and in 6 % of the cases the clinical course became critical to life-threatening. Outside Wuhan/Hubei and outside China it was observed that the course of the disease was milder in more than 80 % of all cases.
 - Median age of the injected individuals in China was 51 years, and approx. 78 % of all cases were aged between 30 and 69 years.
 - Disease in children appears to be relatively rare and mild with approximately 2.4% of the total reported cases amongst individuals aged under 19 years. A very small proportion of those aged under 19 years have developed severe (2.5%) or critical disease (0.2%). The risk of infection in China was almost equal for men and women.

- Risk group for severe courses:**
- There have been severe courses in China, often for individuals without any previous illness; however, especially patients with another previous illness have an increased risk for a severe course, namely:
 - Older people (with a constantly increasing risk for a severe course at as 50 – 60 years of age)
 - smokers
 - Individuals with specific already known diseases:
 - of the heart (e. g. coronary heart disease),
 - of the lungs (e. g. Asthma, chronic bronchitis),
 - patients with a chronic liver disease,
 - patients with diabetes mellitus,
 - patients with cancer,
 - patients with a suppressed immune system (e. g. due to a disease accompanied by low immunity or because of medicaments weakening immune defence such as cortisone).

There has so far been no information on the long-term effects of COVID-19.

- Most common symptoms: (DEU study)**
- Cough 55%, fever 42%, runny nose 23%, sore throat 23%, shortness of breath 3%
 - Other symptoms: headache and body aches, loss of appetite, weight loss, nausea, apathy, abdominal pain, vomiting, diarrhea, conjunctivitis, rash, Ln swelling, somnolence

Predictors for a severe course seem to be, besides age (>50 years), male sex, dyspnoea and persisting fever, distinctive forms of lymphopenia as well as increased LDH and troponin. Fever can often not easily be influenced by anti-pyretica (DOI 10.25646/6539).

- Asymptomal/presymptomal release or transmission:**
- Altogether low evidence: Asymptomal release: Asymptomal release was found in one individual; secretion was similarly high as for 17 symptomal patients.
 - Asymptomal transmission: One asymptomal patient in Wuhan possibly infected five other family members; it is, however, also possible in this context that an unknown person transmitted the pathogen to all the other family members.

Management

Public Health measures, Diagnostics, Therapies and Vaccination

Therapy: depends on the severity of the disease as well as on supportive measures. Patients with severe and critical courses should be transferred to intensive medical care and monitoring at an early stage.

- General measures of inpatient treatment:**
- Restrictive liquid therapy (by which oxygenation could be worsened),
 - Optimize nutrition
 - Close monitoring of vital parameters to recognize serious courses early
 - Consider co-morbidities (duration of required therapies, therapy restrictions?)
 - Application of oxygen (nasal, mask, if need be, high-flow), as required, target SpO2 > 90 % for non-pregnant adults, > 92 – 95 % for pregnant women (WHO Guidelines)
 - CAVE: formation of aerosols when flow of oxygen is high
 - Regular control of inflammation parameters, renal function, liver parameters, coagulation. Additionally, imagery, depending on clinical course.
 - If necessary, different blood cultures (aerob + anaerob)
 - Respiratory materials, depending on clinical course (E+R, CoVID-19) > i.a.w. WHO-Guidelines every 2 to 4 days diagnostics regarding COVID-19

Antiviral Therapy:
A number of anti-viral therapies may be applied in context with SARS-CoV-2, as is discussed by the WHO, amongst others. At the moment, available data are still insufficient to make recommendations for therapies. Application should hence be taken into consideration only in very severe individual cases. There is also no sufficient evidence for a therapy to be recommended regarding COVID-19. Prior to applying an anti-viral therapy as an individual healing attempt it is therefore necessary to carefully consider the benefit-risk-ratio. Preferably, patients should be treated in the context of a clinical study. STAKOB is participating in such studies with its centres.

Antibiotic Therapy: For a suspected bacterial superinfection and/or septic courses, a calculated antibiotic therapy should immediately be initiated, in the case of a sepsis within one hour. In the absence of pathogenic evidence and standard value procalcitonin antibiotic therapy should be stopped within 48 h. Prophylactic administration of antibiotics without any evidence of any bacterial infection is not recommended.

- Other Therapies:**
No application of corticosteroids without clear indication. For treatment of patients with severe and critical forms, the following criteria must regularly be evaluated:
- Early application off oxygen, if need be, non-invasive or invasive ventilation,
 - ECMO. If required; early contact with regional ECMO-centre for counselling in severe ventilation situations
 - Potential complications must be recognized and treated at an early stage
 - Prevention of secondary infections
 - Septic therapy according to guidelines.

See also: WHO: <https://www.who.int/docs/default-source/coronaviruse/clinical-management-of-novel-cov.pdf>

COVID-19 Diseases

Opportunities and risks

TELEMEDICINE IN CORONA PERIODS - OPPORTUNITIES AND RISKS

Previous studies have examined the potential of telemedicine in public health disasters and crises.

A new strategy to avoid health care congestion is "pre-triage" - categorizing patients before they arrive in the emergency room. And this is where telemedicine is to be used now. It should take over the preliminary triage. This makes it possible to examine patients efficiently. This approach is both patient-centered and self-supporting, and protects patients, doctors, and the community from exposure. It enables doctors and patients to communicate around the clock via smartphones or webcam-capable computers. This enables healthcare providers to obtain detailed travel and exposure information. Automated screening algorithms can be integrated, and local epidemiological information can be used to standardize screening and care across all providers.

Instead of expecting all outpatient practices to keep up with the rapidly evolving recommendations for COVID-19, healthcare providers have developed automated logical processes (so-called bots) that give patients with medium to high risk of disease access to adequate care (real or virtual).

The biggest hurdle for large-scale telemedical care is the coordination of test capacities. As test site availability increases, local systems need to be developed and integrated into telemedicine workflows that can be used to test suitable patients while minimizing exposure - using dedicated offices, tents, or in-car tests. The question of reimbursement has not yet been finally clarified and could be or become a show stopper.

TAKE HOME MESSAGES:

1. Disasters and pandemics pose special challenges to health care.
2. Even if telemedicine cannot solve all problems, it is well suited for scenarios in which the infrastructure remains intact and the doctors are available to the patients.
3. Reimbursement, government licensing, cross-hospital approval, and program implementation take time, but healthcare systems that have already invested in telemedicine are well positioned to ensure that Covid-19 patients receive the care they need.

Management

Diagnostics, Therapies

Of chloroquine and COVID-19- *OLD BROOMS CAN'T GO OR MAY NOT GO!*

The potential benefits of chloroquine, a widely used antimalarial drug, in the treatment of SARS-CoV-2 patients have been discussed in the (specialist) media for several weeks.

Both chloroquine salts (sulfate and phosphate) are available as malaria treatment. Hydroxychloroquine has also been used as an malaria treatment, but is also used in the treatment of autoimmune diseases. Chloroquine and hydroxychloroquine are considered safe and the side effects are well documented. However, the range between a therapeutic and a toxic dose is small. In animal models against various viral pathogens, the good in vitro activity is not often confirmed. In some animal models, there was even an increase in the virus multiplication under chloroquine. This may be due to the immunomodulatory and anti-inflammatory effects of chloroquine. In all studies carried out in humans to date, no relevant effects in acute viral diseases were found. Only in the supportive combination therapy of chronic hepatitis C infection were positive effects visible in two small studies in 2016. There are currently in-vitro data on a good efficacy against SARS-CoV-2 and also a clinical application observation from China in 100 COVID-19 patients, which was able to observe a clinically demonstrable therapeutic effect. However, no detailed information is yet available on the exact study protocols of this observation.

TAKE HOME MESSAGES:

1. In previous research, chloroquine has shown activity in vitro against many different viruses, but has no use in animal models. This will include attributed to the known immunomodulatory effect of chloroquine.
2. Chloroquine has been used several times without success in the treatment of acute viral diseases in humans. A benefit was only recognizable when the combination treatment of a chronic HCV infection was supported.
3. Current in vitro data indicate that chloroquine inhibits the replication of SARS-CoV-2.
4. The cautiously optimistic results of some ongoing clinical trials with chloroquine in China have been announced without the full data being made available.
5. There are initial indications that an excessive immune response can also play a role in the severity of an infection with SARS-CoV-2. Here, the immunomodulatory or anti-inflammatory effect of chloroquine could possibly have a positive effect.
6. Several clinical studies are currently being conducted worldwide with COVID-19 patients with various medications, including chloroquine.

Hopefully, the therapeutic benefits of chloroquine in COVID-19 will soon be better assessed and assessed.

Country	1st case COVID-19	Restrictions measures	Lockdown since	Relaxation of the measures
China	1 st reported case 31-Dec-20 Index case 17-Nov-20	23 Jan start lockdown Hubei including Yueyang, Hunan and Xinjiang they setted checkpoints up at roads connecting to Hubei to urge cars and people from Hubei. Between 24–25 January, the local governments of Shanghai, Jiangsu, Hainan and other areas announced to quarantine passengers from "key areas" of Hubei for 14 days. Chongqing also announced to screen every person who arrived from Wuhan since 1 January and setted 3 centers for treatment up. - Since 1 February, a curfew law that resembles that of Huanggang, Hubei began to be in practice by Zhejiang city of Wenzhou which is the second largest center after Hubei. Each local family can only appoint one family member to go out for purchasing life necessities for every two days. Since 4 February Zhejiang's capital, Hangzhou announced the closure of all of its villages, residential communities and work units to the guests. The people who came in and out of the places must show valid identification papers. The non-residents and cars will be checked strictly. On the same day, Yueqing, Ningbo, Zhengzhou, Linyi, Harbin, Nanjing, Xuzhou and Fuzhou began to take the same approach. Zhumadian, Henan announced that each family should only have one member to be outdoor for shopping life necessities for every 5 days. - Workers having their temperatures taken as they enter an industrial park in Shenzhen in March 2020 - Factories were closed or reduced production for a few weeks. When they opened again, measures were implemented to reduce risk. During the pandemic, Uyghur workers were sent to China proper to resume work. - Many local governments implemented restrictions to control the outbreak, including keeping schools closed, cutting off villages, and restricting travel. - On 2 April 2020, the government ordered a Hubei-like lockdown on Jia County, Henan, after a woman tested positive for the coronavirus. It is suspected that she may have been infected when she visited a hospital where three doctors tested positive for the virus, despite showing no symptoms.	23-Jan-20 Hubei	Travel restrictions were imposed in Wuhan cancelled on April 8th, 2020 for people with a health certificate ("green health code").
Spain	31-Jan-20	- Stay at home (except to purchase food and medicine, work or attend emergencies) - Lockdown of none-essential Shops and Businesses, bar, restaurant, cafes, cinemas - Government banned all non-essential activity	28-Mar-20 nationwide lockdown until 26-Apr-20	
France	24-Jan-20	- All school and universities closed since 16 Mar - Banned gatherings of more than 100 people - Closure of all non-essential public places, restaurants, cafes, cinemas and discotheques - Attestation form to leave for shopping food, travelling to work, accessing healthcare	17-Mar-20 until 15-Apr-20	No loosening of the exit restrictions
Great Britan	31-Jan-20	- Stay at home (essential purchases, work travel, remote work, medical need, one exercise per day, providing care for others) - Non-essential activities, all public gatherings, social event are closed	24-Mar-20	
Iran	19-Feb-20	- No measures like to quarantine areas affected by the outbreak only individuals would be quarantined - Cancellation of sporting events, cultural event and closed public places, Education, Travels	No lockdown	relax the strict Corona measures under particularly strict hygienic conditions in three phases at 11 th of April
Italy	31-Jan-20	- Lockdown province of Lodi in Lombardy - Shutdown all schools, universities, sporting events are cancelled nationwide - Extended all measures from “red zone” to nationwide at 9 March - Regulation of free movement, banned open-air sports and running, closed parks, playgrounds and public green, movement across the country restricted at 20 March - Nationwide lockdown all non-essential production, industries and businesses are closed	21-Feb-20 Province of Lodi in Lombardy 21-Mar-20 nationwide until 13-April-20	

Country	1st case COVID-19	Restrictions measures	Lockdown since	Relaxation of the measures
Republic of Korea	20-Jan-20	- Combined testing with contact tracing - Order to self-quarantine in connection with the contact tracing app if the patient moves outside of the quarantine		
Turkey	11-Mar-20	16 Mar all libraries are closed: Pavilions, discotheques, bars and night clubs would be closed temporarily 27 Mar picnics, fishing and doing physical exercises outside are banned, a few villages close to the town were quarantined 3 Apr 15 day entry ban to 30 metropolitan, using mask in public areas, nationwide ban o prayer gatherings in mosques, temporarily closing all public gathering places , cafes, internet cafes and cinemas - All kind of scientific, cultural and artistic meeting or activities were postponed. - Military farwell ceremonies were temporarily suspended - Activities of barber shops, hairdressers and beauty parlours were to cease - Banned barbequing in gardens, parks and promenade. Restaurants, dining places and patisseries closed for public fining in – allowed to offer home delivery and take-away		
USA	20-Jan-20	- Lockdown measures which limit (travel, work and shop) - California stay at home (except to get food, care for relative or friends, obtain health care, go to an essential job with social distancing during the work - Restaurants (only take away), bars, nightclubs, entertainment venues, gyms and fitness studios are closed - New York non-essential businesses shut down their office - Casinos, gyms, theaters, shopping malls, amusement parks and bowling are closed, non-essential gatherings are temporarily banned - Social distancing - Similar restrictions in Illinois, Texas, Nevada, New Jersey and Florida including the shutting down	19-Mar-20 in some Areas	
Austria	25-Feb-20	- Schools and universities are closed, all outdoor events with more than 500 peoples and indoor events with more than 100 peoples are cancelled at 10 Mar. - Avoid social contact, travel restrictions for people coming from Italy 15 Mar ban public gatherings of more than five people, restaurants are closed, Province Tirol lockdown for one week 16 Mar nationwide, home may only be left for necessary professional activities, necessary purchases, assisting other peoples or activities outside, alone or in the company of peoples living in the same household 6 Apr entering a store only with wearing a face mask		From April 14, small shops as well as DIY and garden centres can reopen under strict conditions. From May 1st, all shops, shopping centres and hairdressers should be allowed to reopen. Hotels and restaurants should follow in the middle of May at the earliest.
Germany	27-Jan-20	8 Mar Cancellation all events more than 1000 peoples 14 Mar schools, universities are closed - Several federal states widened their measures to limit public activities (close bars or forbit events in the big cities) 16 Mar Bavarian declared a state of emergency and introduced measures to limit public movement and declare a curfew at 20 Mar 23 Mar the government and the federal states forbit gatherings of more than two peoples and require a minimum distance of 1,5metres in public. Shops, Restaurants and Hairdressers are closed. - Mask requirement in two cities (Jena and Nordhausen)	Lockdown 22-Mar-20 in Bavaria and Saarland until 20-Apr-20 Contact limitation until nationwide until 19-Apr-20	No loosening of the exit restrictions

When to use a mask

To wear or not to wear? That has become the key question during the pandemic as the face mask has become a symbol of our changed lives under coronavirus.

Key to remember, say WHO officials, is that coronavirus is spread by droplets and not airborne transmission. “The most likely person to become a case is someone who has been in significant contact of another case”. WHO still don’t recommend mask wearing by the general public. “We don’t generally recommend the wearing of masks in public by otherwise well individuals because it has not up to now been associated with any particular benefit.”.

The ECDC published a paper as of 6 April about „Using face masks in the community. Reducing COVID-19 transmission from potentially asymptomatic or pre-symptomatic people through the use of face masks”.

The scope of the document is to provide the ECDC opinion on the suitability of face masks and other face covers in the community by individuals who are not ill in order to reduce potential pre-symptomatic or asymptomatic transmission of COVID-19 from the mask wearer to others.

There are three important caveats related to the use of face masks in the community:

- It should be ensured that medical face masks (and respirators) are conserved and **prioritised for use by healthcare providers**, especially given the current shortages of respiratory personal protective equipment reported across EU/EEA countries.
- The use of face masks may provide a **false sense of security** leading to suboptimal physical distancing, poor respiratory etiquette and hand hygiene – and even not staying at home when ill.
- There is a risk that **improper removal** of the face mask, handling of a contaminated face mask or an increased tendency to touch the face while wearing a face mask by healthy persons **might actually increase the risk of transmission**.

Table. Pros and cons of face mask use in the community

Arguments and evidence supporting the use of face masks	Arguments and evidence against the use of face masks
Due to increasing evidence that persons with mild or no symptoms can contribute to the spread of COVID-19, face masks and other face covers may be considered a means of source control complementary to other measures already in place to reduce the transmission of COVID-19.	Medical face masks are currently in short supply. In view of the current pressure to the health systems, their use by healthcare workers needs to be clearly prioritised and protected.
Evidence is growing that viral shedding of SARS-CoV-2 is higher just before onset of symptoms and for the initial 7–8 days after onset.	There is only limited indirect evidence that non-medical face masks are effective as a means of source control.
Face masks have been used extensively in the public in Asian countries and have been linked to a slightly lower risk of SARS among persons without known contact with SARS patients during the 2003 SARS epidemic.	Wearing a face mask may create a false feeling of security, leading to relaxing of physical distancing and increased frequency of face touching (mask adjustment, etc.)
Non-medical face masks and other face covers made of textiles have the advantage that they can be produced easily; they are washable and reusable.	Face masks need to be carefully put on and taken off in order to prevent self-contamination.
	Face masks are not well tolerated by certain population groups (e.g. children) or by persons with chronic respiratory disease.
	There are no established standards for non-medical face masks used as a means of source control or personal protection.

Conclusions

- The use of medical face masks by healthcare workers must be given priority over the use in the community.
- The use of face masks in public may serve as a means of source control to reduce the spread of the infection in the community by minimising the excretion of respiratory droplets from infected individuals who have not yet developed symptoms or who remain asymptomatic. It is not known how much the use of masks in the community can contribute to a decrease in transmission in addition to the other countermeasures.
- The use of face masks in the community could be considered, especially when visiting busy, closed spaces, such as grocery stores, shopping centres, or when using public transport, etc.
- The use of non-medical face masks made of various textiles could be considered, especially if – due to supply problems – medical face masks must be prioritised for use as personal protective equipment by healthcare workers. This is based on limited indirect evidence supporting the use of non-medical face masks as a means of source control.
- The use of face masks in the community should be considered only as a complementary measure and not as a replacement for established preventive measures, for example physical distancing, respiratory etiquette, meticulous hand hygiene and avoiding touching the face, nose, eyes and mouth.
- Appropriate use of face masks is key for the effectiveness of the measure and can be improved through education campaigns.
- Recommendations on the use of face masks in the community should carefully take into account evidence gaps, the supply situation, and potential negative side effects.

Preparedness and Response

Basic protective measures against COVID-19:

- When coughing and sneezing, keep your distance and turn away; hold the crook of your arm in front of your mouth and nose or use a handkerchief that you should dispose immediately (respiratory hygiene).
- Wash your hands regularly with soap and water, avoid touching your eyes, nose and mouth (hand hygiene). See also Epi-WIN.
- A medical mask is **not** required if exhibiting no symptoms, as there is no evidence that wearing a mask – of any type – protects non-sick persons. If masks are to be worn, it is critical to follow best practices on how to wear, remove and dispose of them and on hand hygiene after removal.

WHO's Information Network for Epidemics (EPI-WIN) website: Gives people access to timely, accurate, and easy-to-understand advice and information from trusted sources on the evolving COVID-19 pandemic, translating scientific information to actionable information. You will find information and guidelines for individuals, travellers, the health sector and countries on this side.

- All WHO technical guidance regarding COVID-19 you can find [here](#).

During a pandemic considerable physical and psychic stress can occur to concerned persons, relatives and personnel. It is necessary to assign a psychosocial clinical emergency care timely, by incorporating all SMEs in this field. A WHO guideline you can find [here](#).



Travel Informations

In the case of non-deferrable trips, please note the following

- Many airlines have suspended inbound and outbound flights to affected countries. Contact the relevant airline for up-to-date information on flight schedules.
- Check your national foreign office advices for regulations of the countries you're traveling or regulations concerning your country.
- Information's about the latest travel regulations you can find at [IATA](#) and [International SOS](#).

Most countries implemented strikt rules of contact reduction:

- Everyone is urged to reduce contacts with other people outside the members of their own household to an absolutely necessary minimum.
- In public, a minimum distance of 1.5 m must be maintained wherever possible.
- Staying in the public space is only permitted alone, with another person not living in the household or in the company of members of the own household (for most countries, please check bevor traveling).
- Follow the instructions of the local authorities.

People returning from affected areas should self-monitor for symptoms for 14 days and follow national protocols of receiving countries. If symptoms occur, such as fever, or cough or difficulty breathing, persons are advised to contact local health care providers, preferably by phone, and inform them of their symptoms and their travel history.

General actions and information on mental health

During a pandemic considerable physical and psychic stress can occur to concerned persons, relatives and personnel. It is necessary to assign a psychosocial clinical emergency care timely, by incorporating all SMEs in this field.

General information on prevention

A pandemic usually puts an increased burden – psychologically and physically – on affected people, their relatives and staff tasked with fighting the disease.

Especially with regards to maintaining endurance the scientific community and professional societies (e.g. DIVI and DGPPN) recommend adapting the already established and standardized preclinical processes in the field of psychosocial trauma care to a clinical setting, at least in those hospitals treating patients affected with the pandemic disease. Large hospitals should order staff with relevant training (e.g. psychiatrists, psycho-therapists etc.) as well as staff with related experience (e.g. priests), ideally with experience in palliative care to develop and maintain an easy-to-access, transparent clinical psychosocial emergency concept for the infected, their relatives and medical staff.

Home quarantine and self-isolation can have serious psychosocial consequences.

There are three critical factors:

- The feeling of (losing) independency
 - The feeling of connectedness (with others)
 - The feeling of self-competence
- (the feeling of something meaningful/effective)

In order to prevent such situations or to alleviate their impact on the individual there is some advice to be followed.

Information of the Psychotrauma Centre Bundeswehr on handling COVID-19

In order to mitigate the spread of COVID-19 (SARS-CoV-2) a number of measures aiming at implementing social-distancing or even quarantine/self-isolation have been implemented by the government. This results in an increasing number of people ordered to stay at home, especially people that are (potentially) infected have to stay at home.

These measures don't leave anybody unaffected. Reducing our social contacts can be burdensome for us. Being as suspect case, the fear of being infected or the disease itself can also negatively impact our psyche. In order to handle this burden the following is recommended:

Access trustworthy information - gain safety: Frequent information from reliable sources (e.g. public broadcasting, websites of the federal ministries) helps to avoid getting lost in thoughts. Thereby safety in a situation where fear and anxiety are "perfectly normal and understandable" is maintained/regained.

Accept your feelings: Quick and frequent changes of your feelings and emotions are a normal thing during a crisis: Feelings like helplessness, fear, anger and inner emptiness can come and go very quickly. In such emotional times no important/life changing decisions should be made.

Set goals: This allows you to regain the feeling of being in control of the situation. The goals need to be achievable and should fit into your overall situation, e.g. keeping a diary, developing new skills, cleaning the flat, completing tasks you tend to postpone.

Talk about it: Talk to your friends, relatives, colleagues and comrades. Sharing your fears and hopes with them helps during a crisis.

Stay in touch: It is very important to maintain social contacts regularly via telephone, messenger apps, video calls and the like. COVID-19 shouldn't be the only topic in those conversations. Take care of your interlocutors, change the topic if you feel the topic is annoying or stressing them.

Seek distraction: Actively distract yourself from the dominating COVID-19 pandemic: Try to have conversations about other topics, read a good book, watch a movie or try to spend time on things you like to do (e.g. a hobby, if possible given the current situation).

Allow humor: "Humor is allowed!" – humor is "battle-proven" against hopelessness. Smiling and laughing often bring relief during stressful situations

Stay active: Complete tasks you usually don't have time for and focus on positive activities, e.g. needlework, cooking or watching a good movie.

Do physical exercises: It is important to stay physically active. Exercising helps to reduce stress levels and increase your wellbeing.

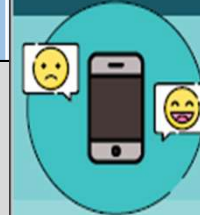
Maintain your everyday rhythm: Try to keep your everyday rhythm during this exceptional situation. Get up at a regular time, fulfill your chores and enjoy your free time afterwards. Eat at the same time you would usually eat and try to go to bed at the same time you would usually go to sleep.

Activate your resources: Look for things that keep up your mood and think about calming and encouraging sentences you can tell yourself and your family, such as "We'll manage this situation together!"

Don't lose track of your own strengths: During a crisis you focus automatically on fears, things that don't work. In order to compensate this and to maintain a positive mentality it is of utmost importance to refocus actively on the things that are working, your strengths and what you've already achieved.



Coping with stress during the 2019-nCoV outbreak



It is normal to feel sad, stressed, confused, scared or angry during a crisis.

Talking to people you trust can help. Contact your friends and family.



If you must stay at home, maintain a healthy lifestyle - including proper diet, sleep, exercise and social contacts with loved ones at home and by email and phone with other family and friends.



Don't use smoking, alcohol or other drugs to deal with your emotions.

If you feel overwhelmed, talk to a health worker or counsellor. Have a plan, where to go to and how to seek help for physical and mental health needs if required.



Get the facts. Gather information that will help you accurately determine your risk so that you can take reasonable precautions. Find a credible source you can trust such as WHO website or, a local or state public health agency.



Limit worry and agitation by lessening the time you and your family spend watching or listening to media coverage that you perceive as upsetting.



Draw on skills you have used in the past that have helped you to manage previous life's adversities and use those skills to help you manage your emotions during the challenging time of this outbreak.