



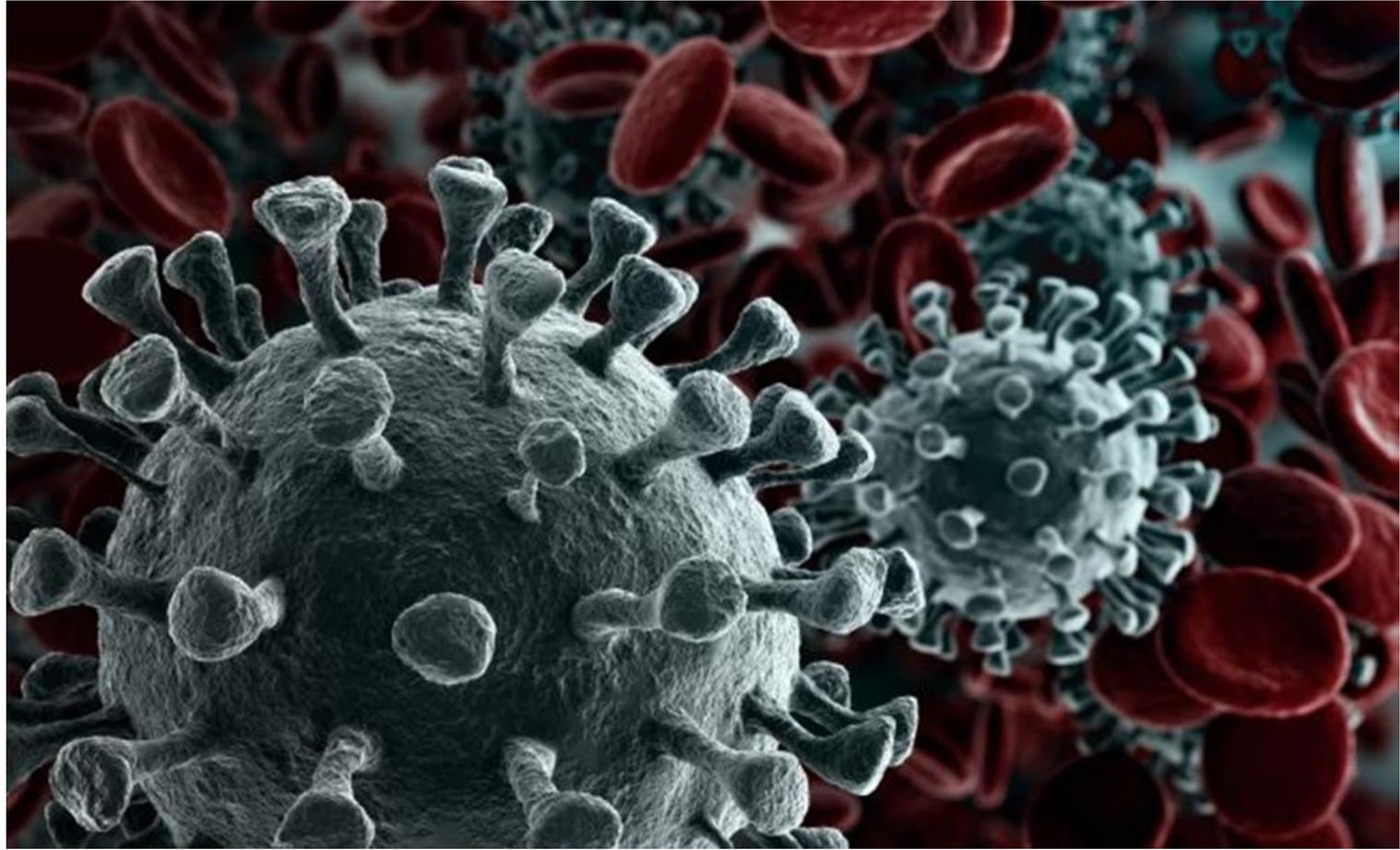
COVID-19 – COMPENDIUM

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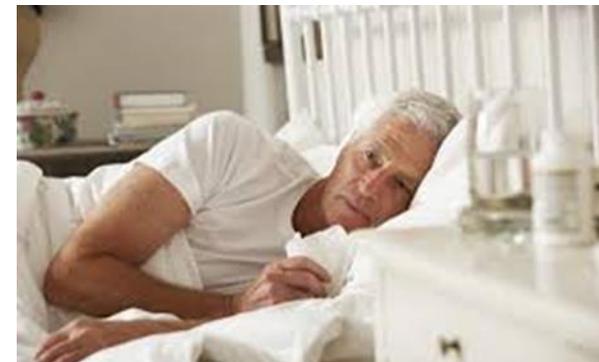
EuGMS

European Geriatric Medicine Society

Fostering geriatric medicine across Europe

STATEMENT OF THE EUGMS EXECUTIVE BOARD ON THE COVID-19 EPIDEMIC

- Although there is no relationship between age and the probability of contracting the coronavirus (COVID-19), **older adults are at much higher risk for developing serious complications from this contamination.**
- The current analysis shows that mortality rates are about 15% in infected subjects over 80 years, whereas it is less than 0.5% in people under 50 years.
- For this reason medical and political authorities should offer older adults, in particular the most frail among them, strict preventive measures in order to minimize the risk of contamination.



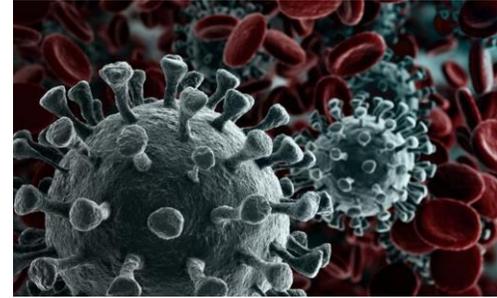
STATEMENT OF THE EUGMS EXECUTIVE BOARD ON THE COVID-19 EPIDEMIC – THE POSSIBLE CONSEQUENCES OF THE CORONAVIRUS OUTBREAK IN OLDER ADULTS

- Those at higher risk are often receiving daily support from family or caregivers who are potential contacts for COVID-19.
- It is important that affected care staff (domiciliary or care homes) are educated based on best practice guidance from national health authorities or the WHO; supported with adequate antiseptic facilities and offered sick pay if they are unwell.
- It is important to offer the optimal medical treatment to people contaminated by the COVID-19 according to the severity of the disease and the capacity of the health system.
- **Advanced age should not by itself be a criterion for excluding patients from specialized hospital units.**

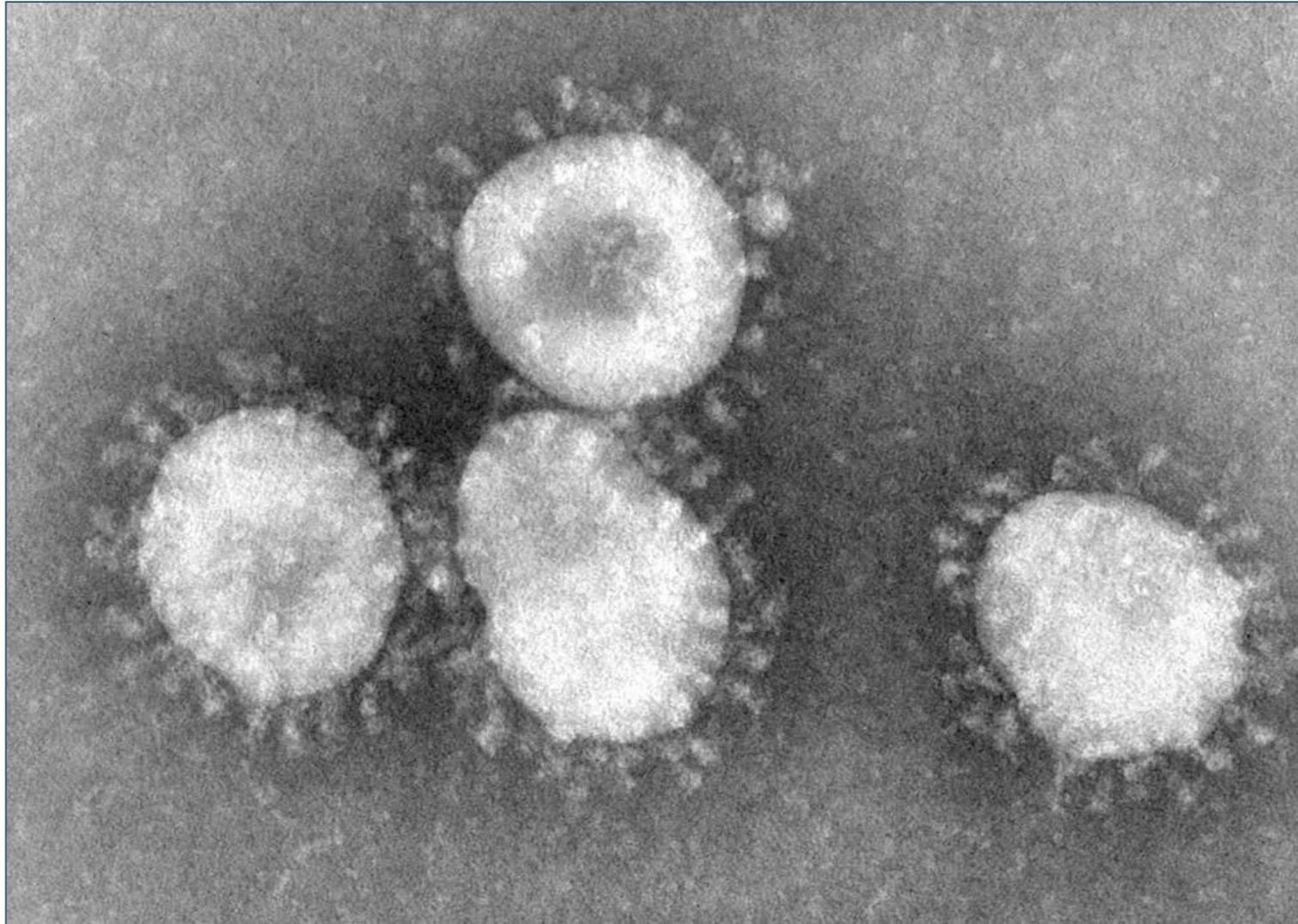
STATEMENT OF THE EUGMS EXECUTIVE BOARD ON THE COVID-19 EPIDEMIC – THE POSSIBLE CONSEQUENCES OF THE CORONAVIRUS OUTBREAK IN OLDER ADULTS

- During this coronavirus outbreak, older people might experience an understandable slowing down in the discharge from acute care to rehabilitation/post-acute care units.
- Although reasonable (given the fact that rehabilitation/post-acute care units want to be sure the patient is not infected), this generates prolonged hospital stays with increased risk of iatrogenic consequences.
- We should therefore make all the necessary efforts for the patients discharged from acute care units and probably use more home care facilities for rehabilitation purposes.

CORONAVIRUSES

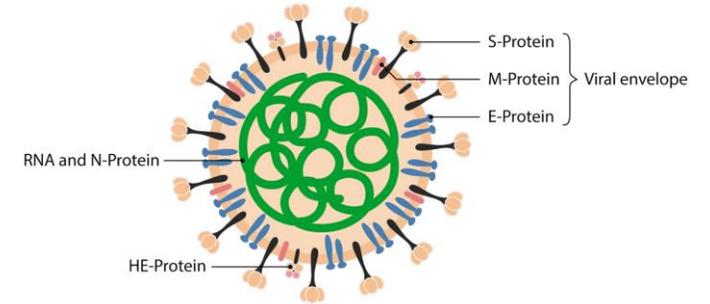


- Coronaviruses are a large family of viruses, some causing illness in people and others that circulate among animals, including camels, cats, and bats.
- Rarely, animal coronaviruses can infect people exposed to infected animals, and then spread among people. But it happens 😞
- That has been seen with MERS-CoV and SARS-CoV, and likely now with **SARS-CoV-2**, the virus that causes **COVID-19**.



Coronaviruses viewed under an electron microscope.
Note the characteristic crown-like (corona) appearance
Image: by CDC/ Dr. Fred Murphy, License: Public Domain Files

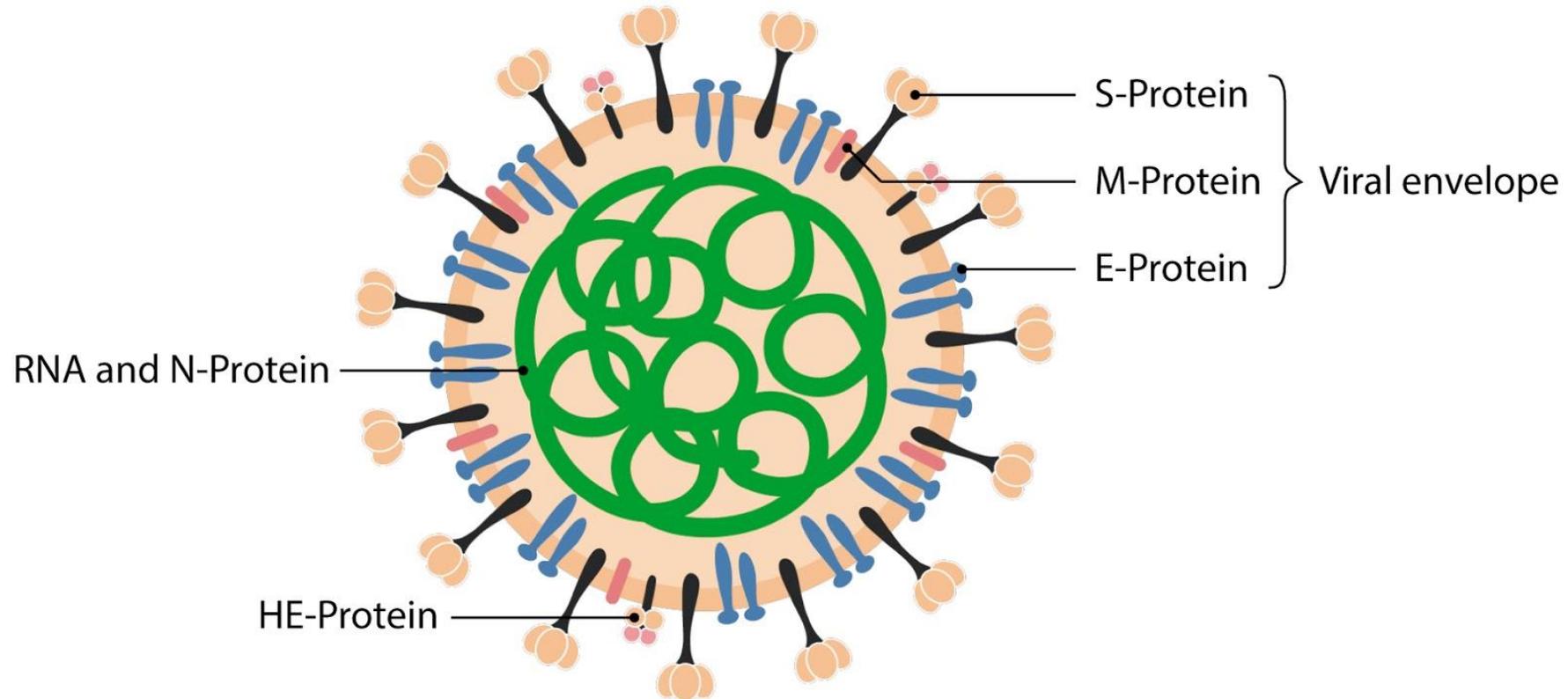
CORONAVIRUSES

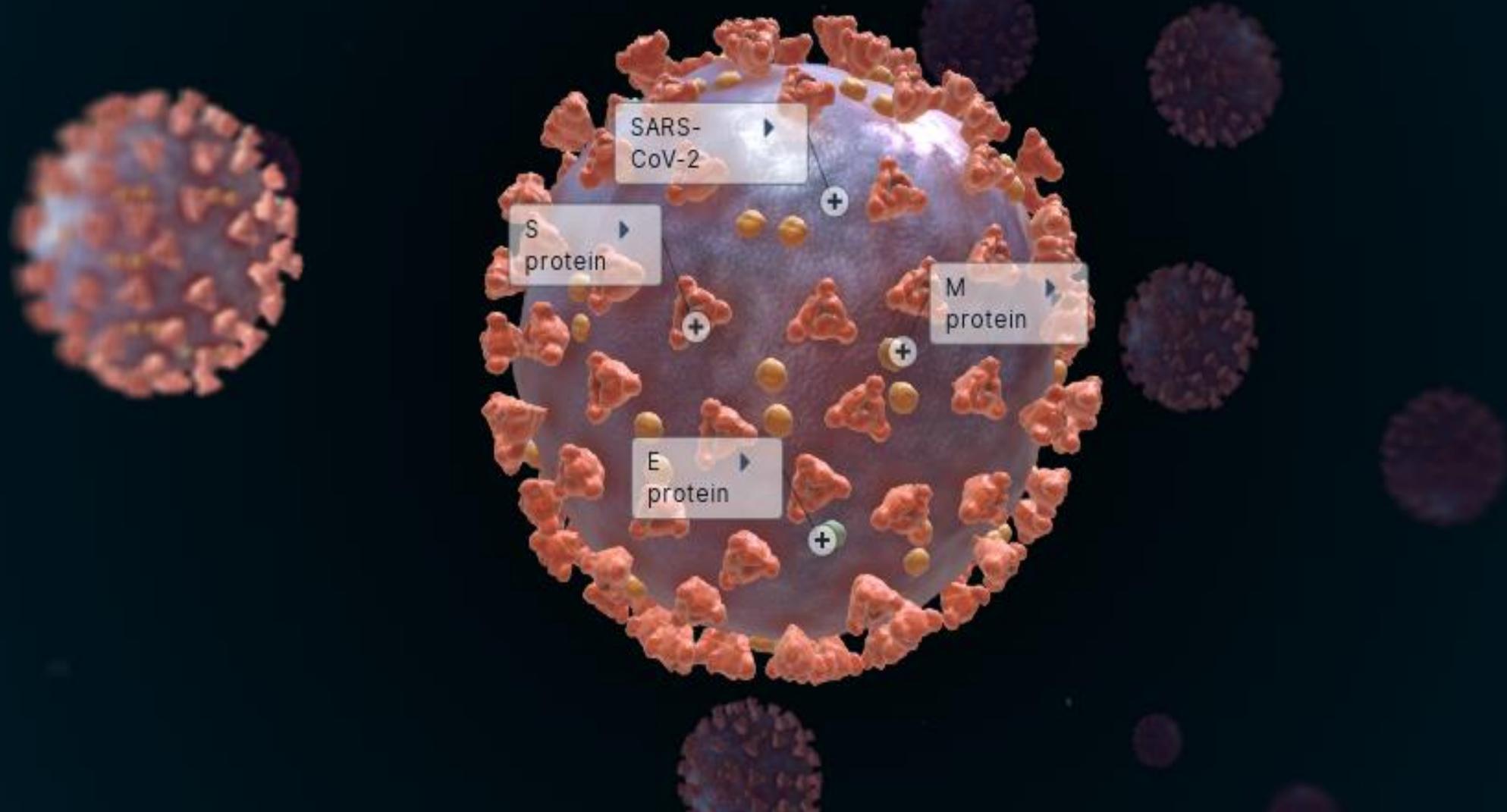


- Coronaviruses (CoV) are a family of enveloped, positive-sense, single-stranded RNA (+ssRNA) viruses.
- The SARS-CoV 2 virion is approximately 1,250 nm in diameter, and its genome ranges from 26 to 32 kilobases, the largest for an RNA virus.
- SARS-CoV 2 has **5 structural proteins**: spike (S), envelope (E), membrane (M), nucleocapsid (N), and hemagglutinin-esterase (HE).
- The N protein holds the RNA genome, and the S, E, and M proteins create the viral envelope. **The S protein, assisted by HE, is responsible for the entry of the virion into the human cell.**
- It is a club-shaped surface projection, giving the virus its characteristic **crown-like appearance** on electron microscopy.

STRUCTURAL PROTEINS OF THE SARS-COV 2 VIRION

IMAGE: BY LECTURIO





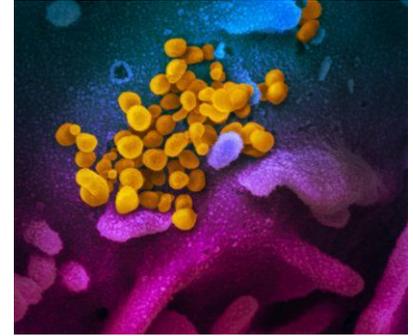
SARS-CoV-2

S protein

M protein

E protein

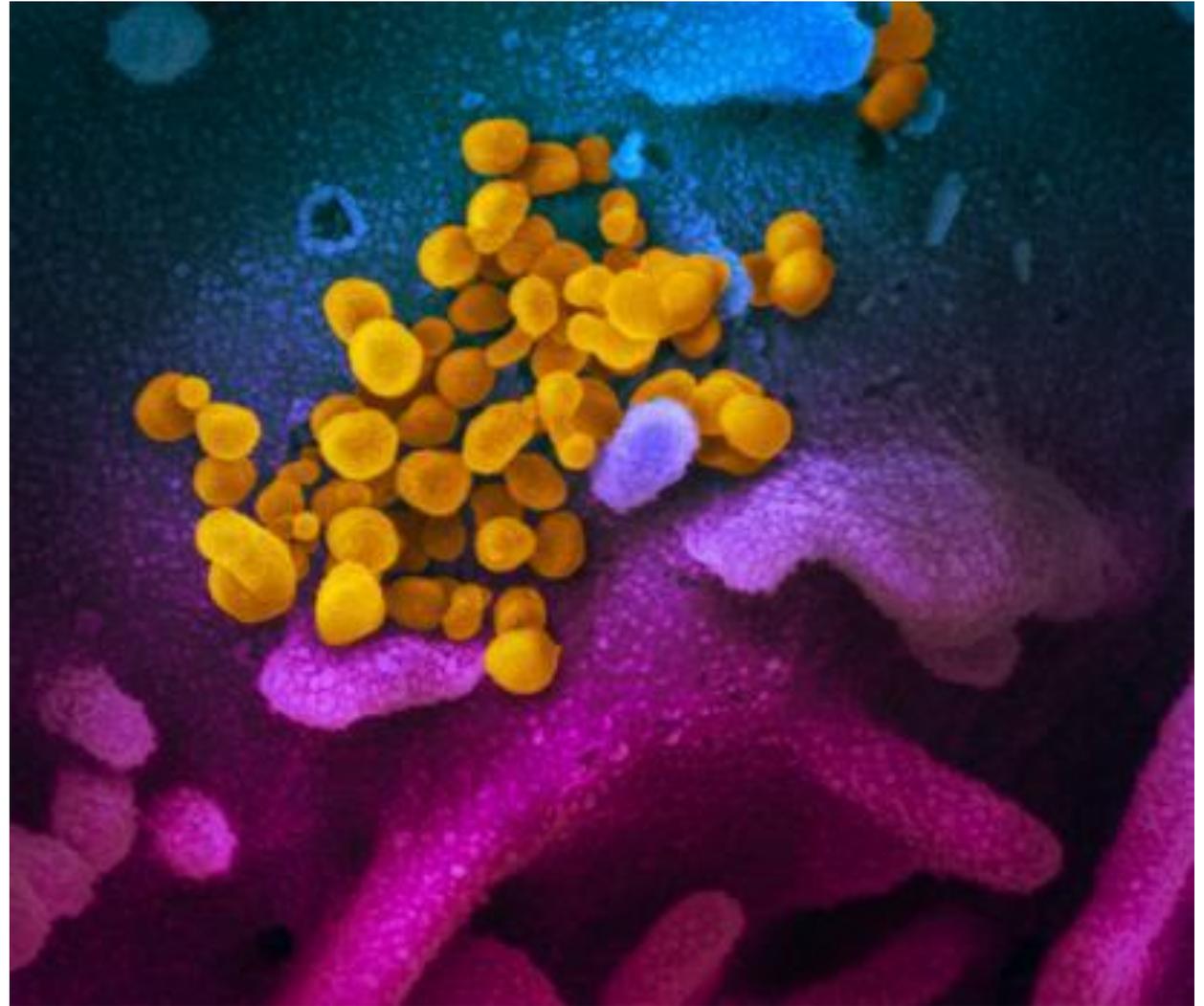
CORONAVIRUSES CAUSE INFECTIONS

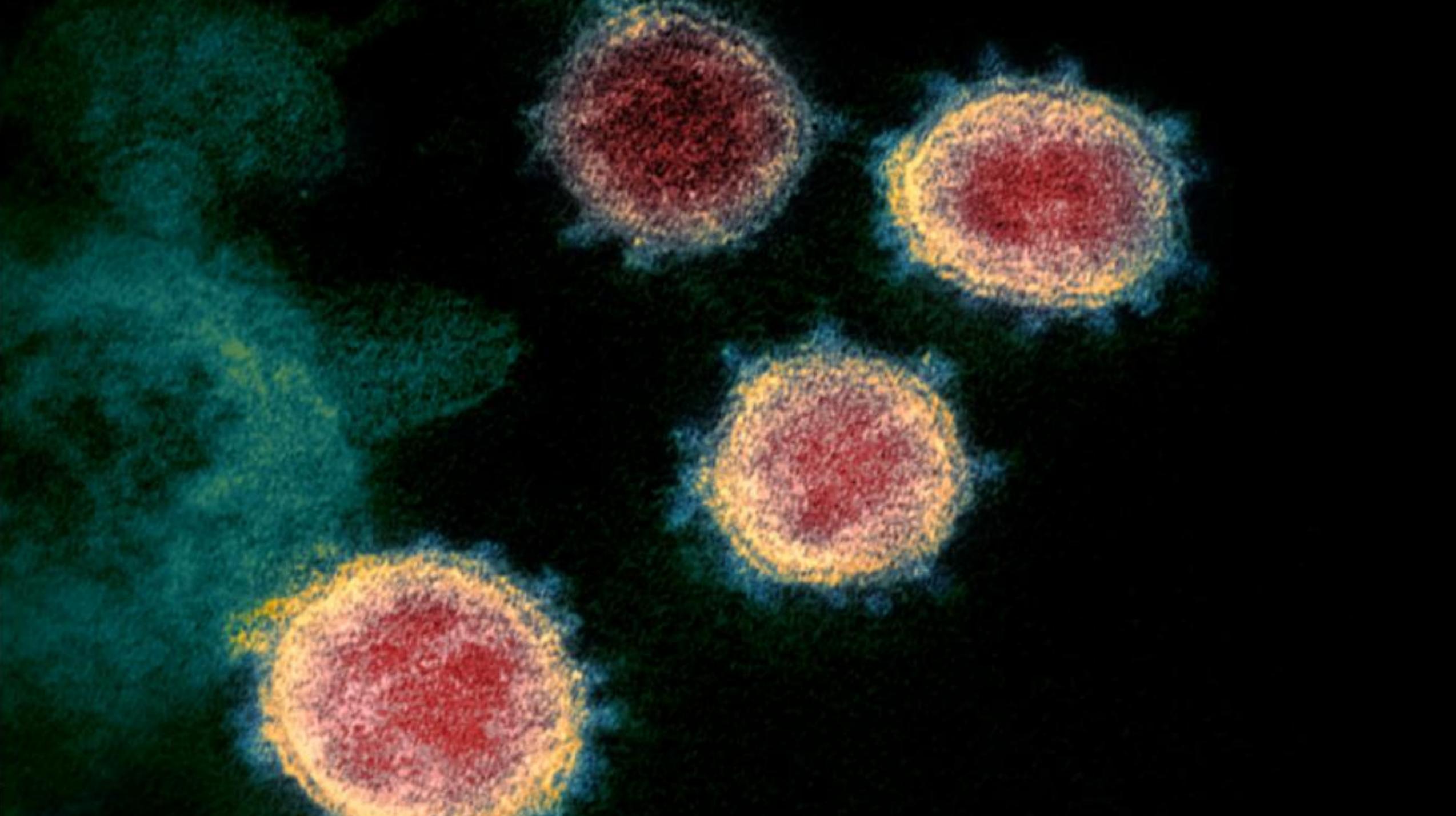


- **CoVs tend to cause mild upper respiratory diseases in humans, such as the common cold**
- **Of the 7 known species of CoV, only 3 are known to cause severe infections in humans:**
 - **Severe acute respiratory disease coronavirus (SARS-CoV):** emerged in 2003 in Southern China from civet cats
 - **Middle East respiratory syndrome coronavirus (MERS-CoV):** emerged in 2012 in Saudi Arabia from dromedary camels
 - **SARS-CoV 2:** emerged in December 2019 in China possibly from bats or pangolins

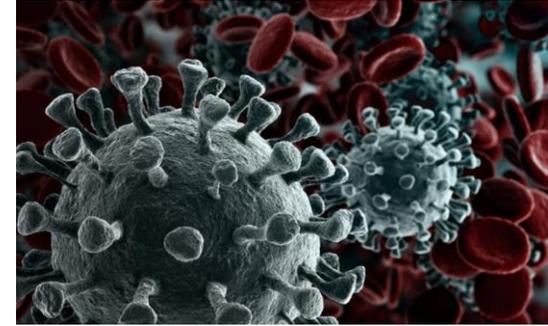
This scanning electron microscope image shows SARS-CoV-2 (yellow)—also known as 2019-nCoV, the virus that causes COVID-19—isolated from a patient in the U.S., emerging from the surface of cells (blue/pink) cultured in the lab.

Credit: NIAID-RML





PATHOMECHANISM



- **SARS-CoV 2** binds, via its S protein, to the host cell through angiotensin-converting enzyme 2 (ACE2) and basigin (BSG) - a transmembrane protein belonging to the immunoglobulin super family.
- ACE2 is expressed by epithelial cells of the intestine, kidney, blood vessels, and most abundantly in type II alveolar cells of **the lungs**.
- **The viral spike protein induces a decrease in the levels of ACE2 in human cells, possibly inducing serious lung damage.**

NOTE:

- The expression of ACE2 is highly increased in patients with diabetes mellitus or hypertension being treated with ACE inhibitors, which produces an upregulation of ACE2.
- Contrary to initial reports, the American College of Cardiology has pointed out that there is no data to support the claim that ACE inhibitors increase the risk of COVID-19 infection.
- As such, it is recommended that patients who are already on **ACE inhibitors should continue** to do so while further studies are performed.

COVID-19; CORONAVIRUS DISEASE 2019

COVID-19 is a respiratory infection caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV 2).

- Transmission of the virus mainly occurs via direct contact or aerosol droplets.
- The disease may present asymptotically or with fever and dry cough.
- Immunosuppressed individuals or those with preexisting conditions have a higher risk of developing dyspnea and pneumonia.
- Management is based on supportive care (oxygen treatment).

	Common cold	GI tract infection	Severe acute respiratory syndrome (SARS)	COVID-19 (Wuhan City, China)
Incubation	3 days	3 days	4–6 days	2–14 days
Incidence	Most common	Rare	Rare	~ 234,000 cases (Dec 2019 – mid-March 2020)
Prognosis	Complete resolution	Complete resolution (up to 25% fatal for NEC)	30% resolution 70% severe infection 10% fatal	80% resolution 15% severe infection 5% critical infection 4.2% fatal (based on confirmed cases as of March 20, 2020, may change)
Clinical manifestation	Sneezing, rhinorrhea, headache, sore throat, malaise, fever, chills	Diarrhea, gastroenteritis, neonatal necrotizing enterocolitis	Fever > 37,8°C (100,0°F), muscle pain, lethargy, cough, sore throat, malaise Shortness of breath/ pneumonia (direct viral or secondary bacterial)	Asymptomatic Mild infection: fever, dry cough, malaise, dehydration Severe infection: high fever, shortness of breath, chest pain, hemoptysis Complications: pneumonia, ARDS, sepsis, multi-organ

MORTALITY RATE ESTIMATE BY THE WORLD HEALTH ORGANIZATION (WHO) AS OF MARCH 3, 2020

- **Globally, about 3.4% of reported COVID-19 cases have died**
- Seasonal flu generally kills far < 1% of those infected
- We don't know how many were infected with COVID-19
- The only number currently known is how many people have died out of those who have been reported to the WHO
- **It is therefore very early to make any conclusive statements about what the overall mortality rate will be for the novel coronavirus**

MORTALITY RATE ESTIMATE BY THE WORLD HEALTH ORGANIZATION (WHO) DATA AS ON MARCH 20, 2020



The mortality rate of COVID-19 ranges from ~0.1 to 8% across different nations, with a global average of 4.2%

With 234,073 confirmed cases and 9,840 deaths, according to WHO

Seasonal flu generally kills far < 1% of those infected

Due to undetected cases and unconfirmed causes of death, it is difficult to determine an accurate mortality rate at this time.

22nd of March

Coronavirus Cases
316 612

Deaths:
13 599

Recovered:
95 922

ACTIVE CASES

207,091

Currently Infected Patients

196,951 (95%)

in Mild Condition

10,140 (5%)

Serious or Critical

[Show Graph](#)

Country, Other	Total Cases	New Cases	Total Deaths	New Deaths	Total Recovered	Active Cases	Serious, Critical	Tot Cases/ 1M pop
Ireland	785		3		5	777	13	159
Pakistan	730	+85	3		13	714		3
<i>Diamond Princess</i>	712		8		567	137	15	
Finland	626	+103	1		10	615	12	113
Thailand	599	+188	1		44	554	7	9
Iceland	568	+95	1		5	562	1	1,665
Poland	563	+27	7	+2	13	543	3	15
Chile	537		1		8	528	7	28
Ecuador	532		7		3	522	2	30
Greece	530		13		19	498	18	51
Indonesia	514	+64	48	+10	29	437		2
Saudi Arabia	511	+119			17	494		15
Qatar	481				27	454	6	167

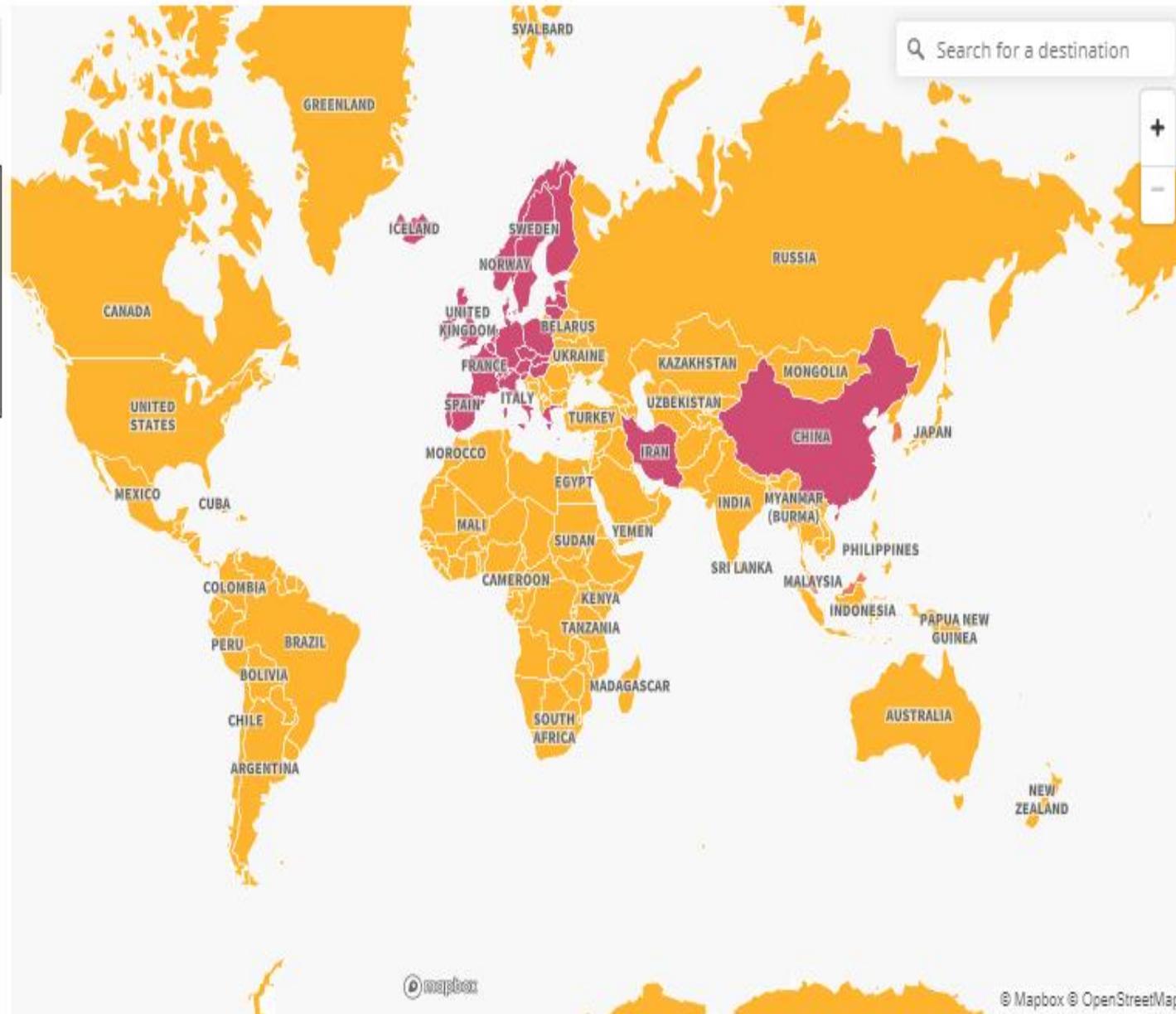
COVID-19 Travel Recommendations by Country

Geographic Risk Assessment for COVID-19 Transmission

Click on the map to get country-specific travel health information about COVID-19.

Country Transmission Level

- Widespread ongoing transmission with restrictions on entry to the United States
- Widespread ongoing transmission without restrictions on entry to the United States
- Ongoing community transmission
- Limited community transmission



PEOPLE WHO ARE AT HIGHER RISK OF SEVERE COVID-19 COURSE

Some people may be at higher risk of getting very sick from this illness:

- Older adults (> 65 years of age; especially 80+)
- People who have serious underlying medical conditions, like:
 - Heart disease (CAD, HF, valvular defects)
 - Diabetes mellitus; Pregnancy
 - Lung disease (asthma bronchiale, COPD, tuberculosis)
 - Under immunospressive treatment (long-term steroid use, cancer, AIDS/HIV infection, congenital immunodeficiency, use of immunosuppressants)



Older Adults

People with Asthma and COVID-19

People with HIV

Steps to Prevent Getting Sick

If You Are Sick +

Frequently Asked Questions

Travel +

Cases & Latest Updates +

Schools, Workplaces & Community Locations +

Healthcare Professionals +

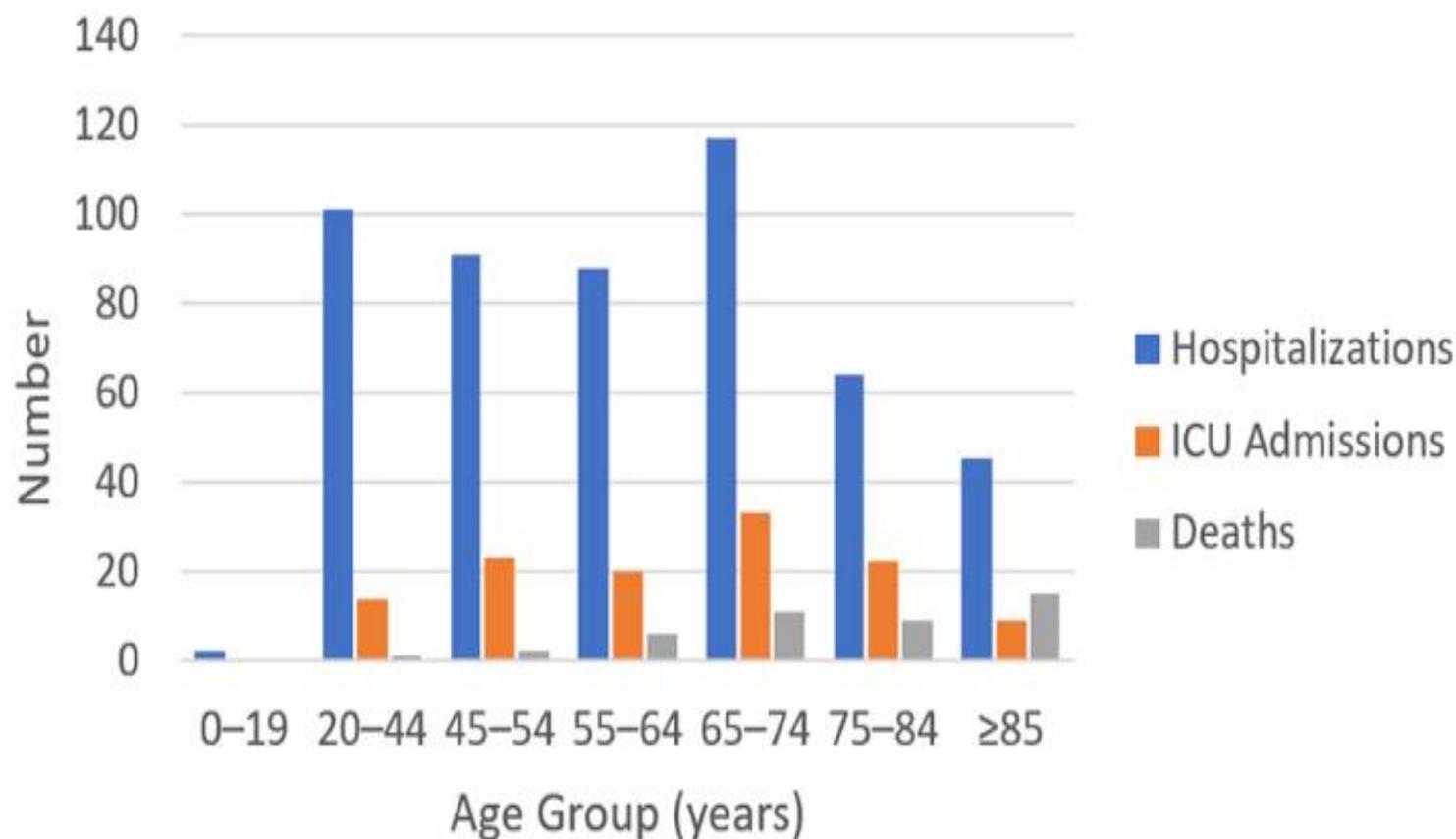
Healthcare Facilities +

Health Departments +

Laboratories +

US Hospitalizations, ICU Admissions, and Deaths from COVID-19

February 12–March 16, 2020



Severe Outcomes Among Patients with Coronavirus Disease 2019 (COVID-19) — United States, February 12–March 16, 2020. MMWR Morb Mortal Wkly Rep.

ePub: 18 March 2020. DOI: <http://dx.doi.org/10.15585/mmwr.mm6912e2>

COVID-19 is a new disease and we are learning more about it every day. Older adults are at higher risk for severe illness from COVID-19.

OLDER ADULTS ARE AT HIGHER RISK OF SEVERE COVID-19 COURSE [EUSGM]

8 out of 10 deaths in the U.S. occurred in adults 65 years old and older

Among adults with confirmed COVID-19 reported in the U.S.:

Estimated percent requiring hospitalization

- 31-70% of adults 85 years old and older
- 31-59% of adults 65-84 years old

Estimated percent requiring admission to intensive care unit

- 6-29% of adults 85 years old and older
- 11-31% of adults 65-84 years old

Estimated percent who died

- 10-27% of adults 85 years old and older
- 4-11% of adults 65-84 years old

IMMUNE SYSTEM BECOMES LESS EFFECTIVE IN ELDERLY

- The immune system becomes less able to distinguish self from nonself, making autoimmune disorders more common.
- Macrophages more slowly destroy bacteria, cancer cells, and other antigens, possibly contributing to the increased incidence of cancer among the elderly.
- T cells less quickly respond to antigens.
- There are fewer lymphocytes that can respond to new antigens.
- Less complement is produced in response to bacterial infections.
- Although overall antibody (Ab) concentration does not decline significantly, the binding affinity of antibody to antigen is decreased, possibly contributing to the increased incidence of pneumonia, influenza, etc., and **the increased risk of death due to the viral and bacterial disorders among the elderly.**

HOW EASILY SARS-COV 2 SPREADS?

- Some viruses are highly contagious (spread easily), like measles, while other viruses do not spread as easily. Another factor is whether the spread is sustained, spreading continually without stopping.
- **The virus SARS-CoV 2 that causes COVID-19 seems to be spreading easily and sustainably in the community (“community spread”)**



HOW EASILY SARS-COV 2 SPREADS?



- **The virus spreads mainly from person-to-person:**
 - between people who are in close contact with one another (ca. 1 m).
 - through respiratory droplets produced when an infected person coughs or sneezes; - these droplets can land in the mouths or noses of people who are nearby and be inhaled into the lungs
- People are most contagious when they are most symptomatic (the sickest)
- Some spread might be possible before people show symptoms of COVID-19
- Person can get COVID-19 by touching a surface or object that has the virus on it and then touching their own mouth, nose, or eyes

VACCINE AGAINST COVID-19



- **A Phase 1 clinical trial evaluating an investigational vaccine began March 16, 2020**, in the Kaiser Permanente Washington Health Research Institute (KPWHRI) in Seattle, WA, USA.
- The vaccine is called mRNA-1273, and is designed to encode for a prefusion-stabilized form of the S protein.
- The trial will enroll 45 healthy adult volunteers aged 18 to 55 years over approximately 6 weeks.
- The effective vaccine can be available even up to 1 year 😊

HOW TO AVOID COVID-19?

- ❑ The virus SARS-CoV 2 that causes COVID-19 seems to be spreading easily and sustainably in the community (“community spread”).
- ❑ There is currently no vaccine to prevent from COVID-19

THUS

The best way to prevent illness is to avoid being exposed to the SARS-CoV 2 virus and break a transmission chain !



COVID-19 – CLINICAL PRESENTATION

- Incubation period for COVID-19 : 2–14 days (average of 5 days).
- **Symptoms:**
 - 80% of infections are mild or asymptomatic
 - 15% are severe infections (requiring oxygen therapy)
 - 5% are critical infections (requiring ventilation)



This proportion of severe and critical to mild cases is higher than what is observed for influenza infections !

COVID-19 – CLINICAL PRESENTATION

Asymptomatic cases:

- Infected individuals may not develop any noticeable symptoms, but are still carriers and transmitters of the virus. It has not yet been clearly determined how long asymptomatic individuals remain contagious after the initial infection.

Mild cases:

- Patients present with a dry cough, fever, and common flu-like symptoms, including fatigue, malaise, runny nose, nasal congestion, and sore throat.
- Less frequently, patients may develop diarrhea, nausea, vomiting, diffuse abdominal pain, productive cough, headache, and muscle or joint pain.

COVID-19 – CLINICAL PRESENTATION

Severe cases and complications:

- About 1 in 6 people with COVID-19 experience clinical deterioration and develop a complication in the second week of illness.
- Patients develop dyspnea, high fever, chest pain, hemoptysis, respiratory crackles, and progressive respiratory insufficiency that could potentially lead **to death**.

The most common complications of COVID-19 are:

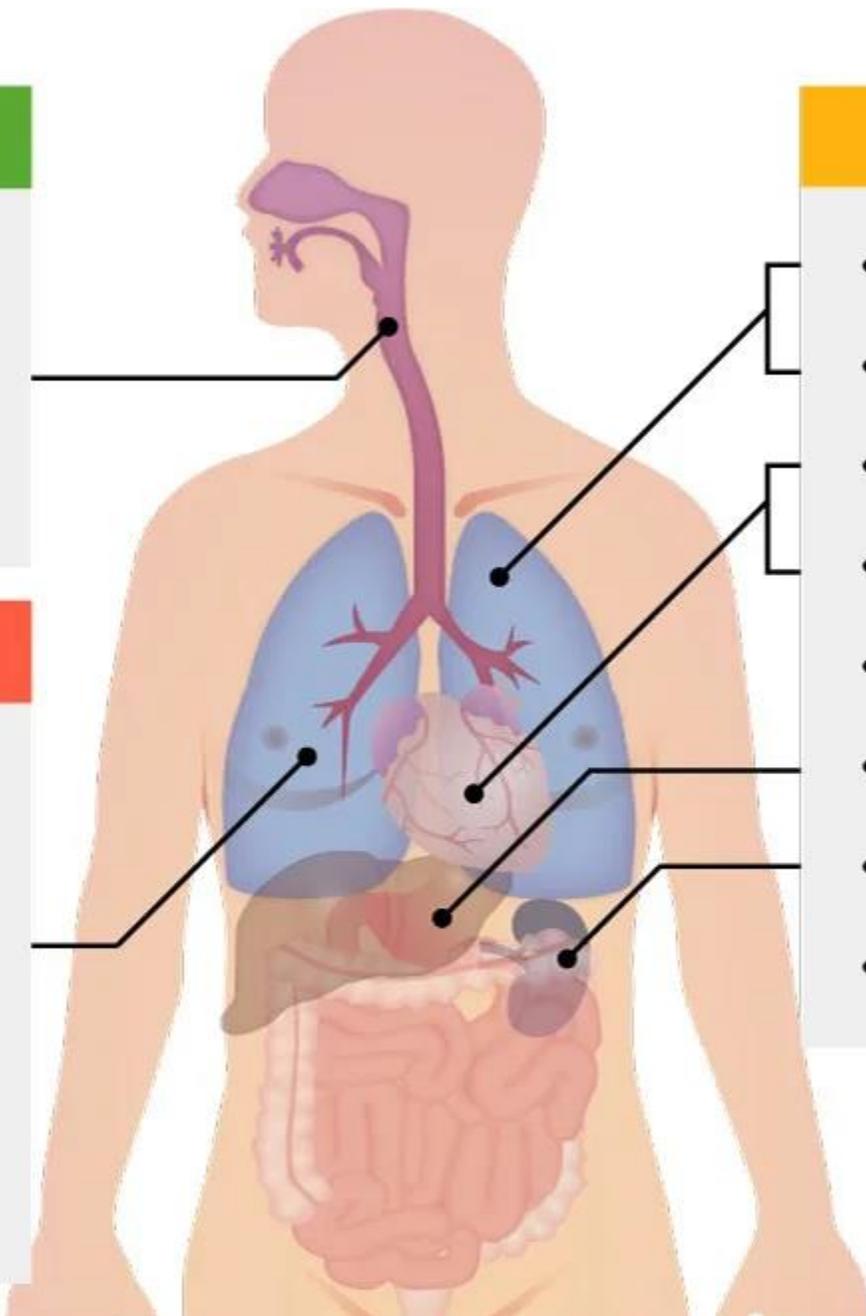
- **interstitial pneumonia and acute respiratory distress syndrome (ARDS), which is the cause of most of the fatalities.**

Common symptoms

- Fever
- Dry cough
- Flu-like symptoms

Severe cases

- Dyspnea
- Chest pain
- Hemoptysis
- Crackles
- Respiratory insufficiency



Complications

- Pneumonia
- ARDS
- Cardiac injury
- Arrhythmia
- Septic shock
- Liver dysfunction
- Acute kidney injury
- Multi-organ failure

DIAGNOSTICS OF COVID-19

- **Polymerase chain reaction (PCR) is currently the only test being used to confirm cases of COVID-19 infection** and should be performed as soon as possible once a person under investigation (PUI) is identified, regardless of the time of symptom onset.
- The specimens used for testing are drawn from the respiratory tract according to the patient's clinical state:
 - Nasopharyngeal swab (easiest method, recommended for mild or asymptomatic suspected cases)
 - Sputum (for patients with productive cough, inducing sputum is not recommended)
 - Bronchial and tracheal secretions or bronchoalveolar lavage (for patients receiving invasive mechanical ventilation)

DIAGNOSTICS OF COVID-19

Laboratory testing should be prioritized to include:

- Hospitalized patients with compatible signs and symptoms
- Individuals who are at high risk of developing a severe form of the disease or a complication (e.g., patients who are elderly, immunocompromised, or have chronic conditions)
- Any individual, including healthcare professionals, who within 2 weeks prior to symptoms onset had close contact with a suspect or laboratory-confirmed COVID-19 patient, or who has a history of travel from affected geographic areas in the 2 previous weeks.

DIAGNOSTICS OF COVID-19

- If a complication is suspected, blood tests are performed to evaluate for **leukopenia, leukocytosis, lymphopenia, and elevated AST and ALT levels.**
- In patients who develop pneumonia, a **chest CT** will show bilateral involvement, multiple areas of consolidation, and ground-glass opacities.
- In the case of ARDS, arterial blood gas analysis shows hypoxemic respiratory failure, and a chest CT can show diffuse bilateral infiltrates, atelectasis, and even pleural effusion.



These two X-ray images are from a 72-year-old woman who has a cough and respiratory distress from last year (left) and now. The yellow circle and ovoid indicate the typical subpleural peripheral opacities

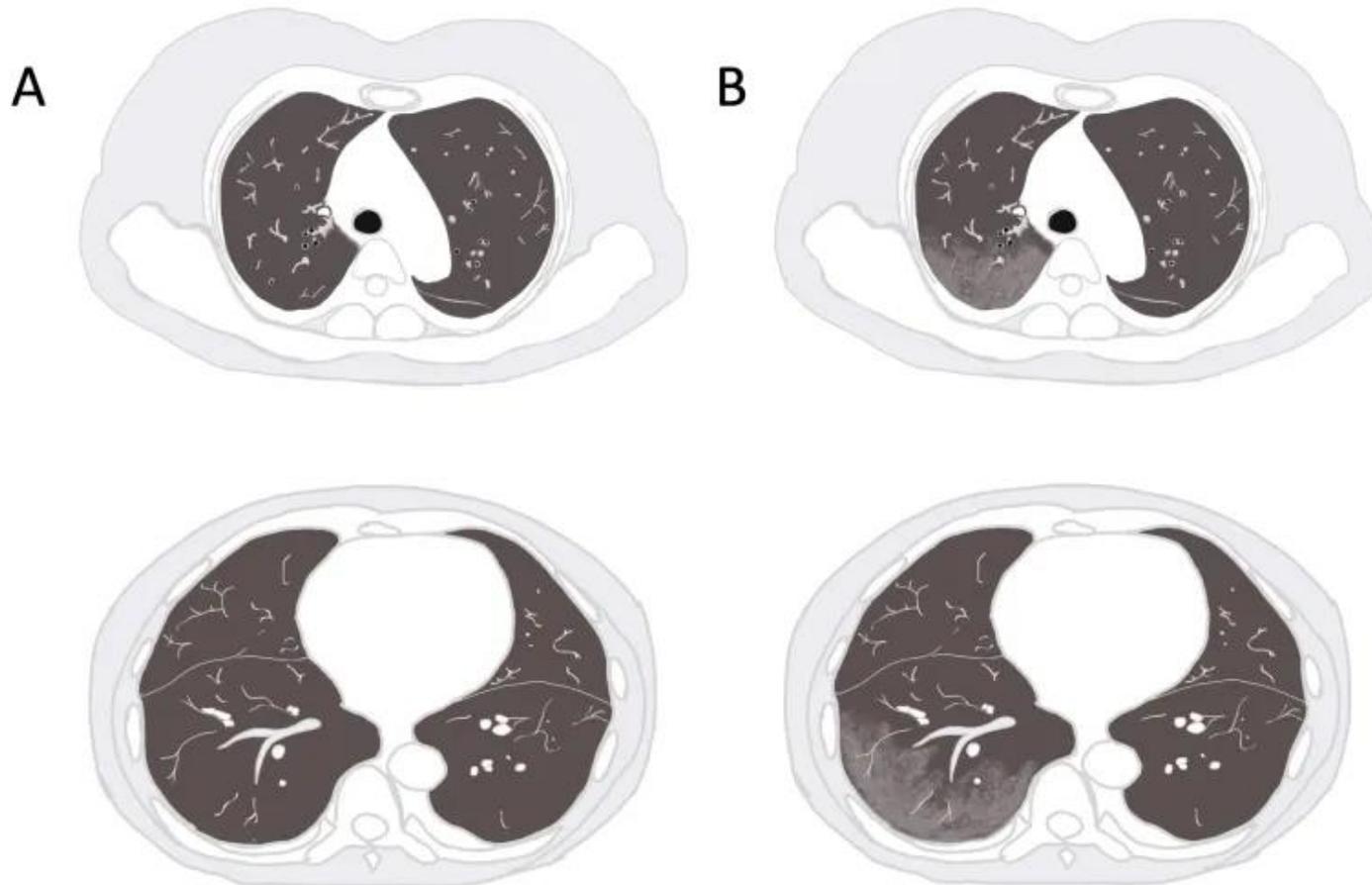
[HTTPS://HEALTHCARE-IN-EUROPE.COM/EN/NEWS/](https://healthcare-in-europe.com/en/news/)

- The findings that make us strongly suspect that we are dealing with a COVID-19 infection are the ground-glass patterned areas, which, even in the initial stages, affect both lungs, in particular the lower lobes, and especially the posterior segments, with a fundamentally peripheral and subpleural distribution. These findings are present on chest CT in practically 50% of patients in the first two days.
- These lesions progress in the following days until they become more diffuse.
- In general, they progress in extension and also towards the consolidation that is done concomitantly with the ground-glass pattern, which can present a rounded morphology.

ILLUSTRATION OF CHEST CT EVOLUTION DURING COVID-19.

A.) IS NORMAL LUNGS FOR COMPARISON, TOP ILLUSTRATION REPRESENTS UPPER LUNG ZONES WHILE BOTTOM SHOWS LOWER LUNG ZONES. **B.)** IS HYPOTHETICAL EARLY STAGE WITH UNILATERAL (RIGHT), MULTIFOCAL, PERIPHERALLY-BASED GROUND-GLASS OPACITIES.

[[HTTPS://PULMCCM.ORG/UNCATEGORIZED/AN-ILLUSTRATED-GUIDE-TO-THE-CHEST-CT-IN-COVID-19/](https://pulmccm.org/uncategorized/an-illustrated-guide-to-the-chest-ct-in-covid-19/)]



MANAGEMENT OF COVID-19

- No specific treatment for COVID-19 is currently available.
- As a healthcare professional, one must always implement practices for infection prevention and control, whenever dealing with a person under investigation or laboratory-confirmed COVID-19 case.
- Patients with mild symptoms and no risk factors do not require hospitalization and are recommended to begin supportive at-home care.
- In the case of antipyretics, **the use of ibuprofen is now considered safe according to the latest WHO advice (March 17, 2020).**

MANAGEMENT OF COVID-19

In the outpatient setting, one must seek professional medical assistance if any of the following emergency warning signs develop:

- Difficulty breathing or shortness of breath
- Persistent pain or pressure in the chest
- Confusion or inability to arouse
- Cyanosis (bluish-tint to lips or face)

MANAGEMENT OF COVID-19

The decision to monitor a patient in the inpatient setting should be made on a case-by-case basis. Once hospitalized, supportive care and acute measures should be applied as necessary for complications, such as:

- Oxygen therapy for patients who develop respiratory distress, hypoxemia, or shock
- Empiric antimicrobials in the case of sepsis or secondary pneumonia
- Advanced oxygen therapy, ventilatory support, and conservative fluid management in the case of acute respiratory distress syndrome (ARDS)
- Fluid bolus and vasopressors in the case of septic shock

TAKE STEPS TO PROTECT YOURSELF



CLEAN YOUR HANDS!

- **Wash your hands** often with soap and water for at least 20 seconds especially after you have been in a public place, touching surfaces outside or after blowing your nose, coughing, or sneezing.
- If soap and water are not readily available, **use a hand sanitizer that contains at least 60% alcohol**. Cover all surfaces of your hands and rub them together until they feel dry.
- **Avoid touching your eyes, nose, and mouth** with unwashed hands.

AVOID CLOSE CONTACT – STAY AT HOME!

- **Avoid contact with people who are sick or could be sick!**
- **Put distance between yourself and other people** if COVID-19 is spreading in your community ($> 1,5 - 2$ m)
- **This is especially important for people who are at higher risk of getting very sick – including all old persons (65+)**



WEAR A FACEMASK IF YOU ARE SICK



- **If you are NOT sick:** You do not need to wear a facemask unless you are caring for someone who is sick (and they are not able to wear a facemask). Facemasks may be in short supply and they should be saved for caregivers.
- **If you are sick:** You should wear a facemask when you are around other people (e.g., sharing a room or vehicle) and before you enter a healthcare provider's office.

CLEAN AND DISINFECT



- **Clean and disinfect frequently touched surfaces daily:**
 - This includes tables, doorknobs, light switches, countertops, handles, desks, phones, keyboards, toilets, faucets, and sinks.
- **If surfaces are dirty, clean them:**
 - Use detergent or soap and water prior to disinfection.

TAKE STEPS TO PROTECT OTHERS !

RE: People with confirmed or suspected COVID-19 (including persons under investigation) who do not need to be hospitalized

Call your doctor:

If you think you have been exposed to COVID-19 and develop a fever and symptoms, such as cough or difficulty breathing, call your healthcare provider for medical advice.



IF YOU ARE SICK

If you are sick with COVID-19 or think you might have it, follow the steps below to help protect other people in your home and community. Follow these:

- **STAY HOME EXCEPT TO GET MEDICAL CARE !!!**
- Separate yourself from other people in your home, this is known as home isolation
- Call ahead before visiting a doctor
- Wear a facemask if you are sick
- Cover your coughs and sneezes
- Clean your hands often
- Avoid sharing personal household items
- Clean all “high-touch” surfaces everyday
- Monitor your symptoms



STAY HOME EXCEPT TO GET MEDICAL CARE

Stay home: People who are mildly ill with COVID-19 are able to recover at home. Do not leave, except to get medical care.

Stay in touch with your doctor. Call before you get medical care. Be sure to get care if you feel worse or you think it is an emergency.

Avoid public transportation: Avoid using public transportation, ride-sharing, or taxis.



SEPARATE YOURSELF FROM OTHER PEOPLE IN YOUR HOME — HOME ISOLATION



- **Stay away from others:** As much as possible, you should stay in a specific “sick room” and away from other people in your home. Use a separate bathroom, if available
- **Limit contact with pets & animals:** You should restrict contact with pets and other animals, just like you would around other people:
 - Although there have not been reports of pets or other animals becoming sick with COVID-19, it is still recommended that people with the virus limit contact with animals until more information is known
 - When possible, have another member of your household care for your animals while you are sick with COVID-19. If you must care for your pet or be around animals while you are sick, wash your hands before and after you interact with them

STAY HOME



COVER COUGHS AND SNEEZES

- **Cover your mouth and nose** with a tissue when you cough or sneeze or use the inside of your elbow.
- **Throw used tissues** in the trash.
- Immediately **wash your hands** with soap and water for at least 20 seconds. If soap and water are not readily available, clean your hands with a hand sanitizer that contains at least 60% alcohol.

WEAR A FACEMASK



- **The sick person** should wear a facemask when is around other people (e.g., sharing a room or vehicle) or pets and before entering a healthcare provider's office.
- If you are not able to wear a facemask (for example, because it causes trouble breathing), then people who live with you should not stay in the same room with you, or they should wear a facemask if they enter your room.

CLEAN YOUR HANDS OFTEN



- Wash your hands often with soap and water for at least 20 seconds, especially after blowing your nose, coughing, or sneezing; going to the bathroom; and before eating or preparing food.
- If soap and water are not readily available, use an alcohol-based hand sanitizer with at least 60% alcohol, covering all surfaces of your hands and rubbing them together until they feel dry.
- Soap and water are the best option if hands are visibly dirty.
- Avoid touching your eyes, nose, and mouth with unwashed hands.

- AVOID SHARING PERSONAL HOUSEHOLD ITEMS
- CLEAN ALL “HIGH-TOUCH” SURFACES EVERYDAY

- **You should not share** dishes, drinking glasses, cups, eating utensils, towels, or bedding with other people or pets in your home. After using these items, they should be washed thoroughly with soap and water.
- **Clean surfaces**, like counters, tabletops, doorknobs, bathroom fixtures, toilets, phones, keyboards, tablets, and bedside tables. Use a household cleaning spray or wipe, according to the label instructions. Labels contain instructions for safe and effective use of the cleaning product including precautions you should take when applying the product, such as wearing gloves and making sure you have good ventilation during use of the product.

MONITOR YOUR SYMPTOMS

- Seeking a prompt medical attention if the illness is worsening (e.g., difficulty breathing). **Before** seeking care, call your healthcare provider and tell them that you have, or are being evaluated for, COVID-19.
- If you have a medical emergency and need to call 911, notify the dispatch personnel that you have, or are being evaluated for COVID-19. If possible, put on a facemask before emergency medical services arrive.

DISCONTINUING HOME ISOLATION

- Patients with confirmed COVID-19 should remain under home isolation precautions until the risk of secondary transmission to others is thought to be low.
- The decision to discontinue home isolation precautions should be made on a case-by-case basis, in consultation with healthcare providers and state and local health departments.

STRESS DURING EPIDEMIC



- The outbreak of coronavirus disease 2019 (COVID-19) may be stressful for people.
- Fear and anxiety about a disease can be overwhelming and cause strong emotions.
- Coping with stress will make you, the people you care about even stronger.
- **Everyone reacts differently to stressful situations:**
- How you respond to the outbreak can depend on your background, the things that make you different from other people, and the community you live in.

STRESS DURING EPIDEMIC

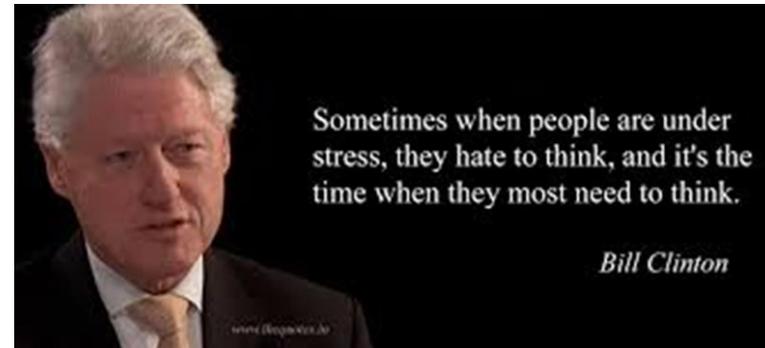


People who may respond more strongly to the stress of a crisis include:

- Older people and people with chronic diseases who are at higher risk for COVID-19
- Children and teens
- People who are helping with the response to COVID-19, like doctors and other health care providers, or first responders
- People who have mental health conditions including problems with drugs use

STRESS DURING AN INFECTIOUS DISEASE OUTBREAK CAN INCLUDE:

- Fear and worry about your own health and the health of your loved ones
- Changes in sleep or eating patterns
- Difficulty sleeping or concentrating
- Worsening of chronic health problems
- Increased use of alcohol, tobacco, or drugs



THINGS YOU CAN DO TO SUPPORT YOURSELF

- Take breaks from watching, reading, or listening to news stories, including social media. Hearing about the pandemic repeatedly can be upsetting
- Take care of your body – take deep breaths, stretch, or meditate; try to eat healthy, well-balanced meals, exercise regularly, get plenty of sleep, and avoid alcohol and drugs
- Make time to unwind. Try to do some other activities you enjoy
- Connect with others – talk with people you trust about your concerns and how you are feeling
- Share accurate information about COVID-19, you can help make people feel less stressed and allow you to connect with them

HOME MESSAGE



- Take care about your grandmas and grandpas – maybe in your hands lies their health and life!
- They must be isolated from the younger members of the community
- Provide them food safely, do not enter their houses, do not hug them and kiss
- Make them feel secure and calm – call them twice a day

HELP YOUR OLDER FAMILY AND NEIGHBOURS



ISOLATION IS BETTER THAN A DISEASE



TAKE CARE OF YOURSELVES!

