

YTUMUN24 HWHO STUDY GUIDE

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Letter from Secretary General:

Esteemed Participants of YTUMUN'24,

As the Secretary-General of Yildiz Technical University Model United Nations 2024, it is my utmost pleasure to express my warmest welcome to every one of you.

YTUMUN'24 aims to provide a platform for students to engage in diplomatic simulations and discuss pressing global issues. Delegates from all over the world will gather to represent different countries and work towards finding innovative solutions to complex problems. Through lively debates, negotiations, and resolutions, YTUMUN'24 fosters critical thinking, diplomacy, and teamwork among participants.

Our conference has been very well prepared with the contributions of our brilliant and hard working academic team. I am beyond pleased to have worked with every one of them and to have been given the opportunity of coordinating these excellent individuals.

As YTUMUN'24 Academic Team we cannot wait to have you all witness the outcome of our endless effort making the second annual edition of YTUMUN. I hope this conference makes a difference in every related way one can think of. Our goal is to make sure every single participant leaves with so much more than they had come with and widens their vision and perspective on these complex issues which they will be discussing in the committee sessions throughout these 3 days.

I am eagerly looking forward to meet each one of you and wish everyone fruitful debates and success in the upcoming conference. Together, let us be the difference we all are looking for in ourselves and our world. Let us aim high and work cooperatively in order to make this conference memorable. Together, let us reach for the stars.

Best Regards,

Dilay Örüng Secretary-General of YTUMUN'24



Letter from the Committee Board

Esteemed Delegates,

On behalf of the World Health Organization Committee, it is our pleasure to welcome you to the Yıldız Technical University Model United Nations 2024. As your chairboard, we look forward to the active and insightful debates we anticipate during our sessions.

Special thanks to our Secretary-General Dilay Örüng and her team of dedicated deputies whose tireless efforts were invaluable in organizing this enriching conference.

As part of your preparation, We encourage you to carefully review the study guides provided and to investigate independent research on the conditions and health care systems in your countries.

If you have any questions or need further guidance, please feel free to contact us at the email below. We are here to help you make your experience productive and memorable.

We look forward to your participation and contribution at Yıldız Technical University on May 17-19.

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Best Regards,

Büşra Özen & Ata Arın Öz



Introduction to the WHO

The World Health Organization is one of the specialized agencies of the United Nations, created in 1948 for international cooperation on public health conditions. Its former predecessor is the Health Organization of the League of Nations. The majority of the agency's funding comes from mandatory yearly contributions given by member nations according to their respective possibilities; but it is also funded through voluntary donations from member states and other partners. The World Health Assembly is the policy making body of the organization, meeting annually in a designated member state.

The WHO goal is to promote health, keep the world safe and serve the vulnerable. Its three main goals are: aiming for universal health coverage in every country, preventing and responding to dire emergencies and promoting health and well-being for all. It is in charge of taking the lead on issues pertaining to global health, establishing norms and standards, managing the direction of health research, formulating choices for evidence-based policy, offering technical assistance to nations, and keeping an eye on and evaluating health trends.

According to the Constitutional agreement of the WHO, each member state has the obligation to act according to conventions or agreements reached in the Health Assembly, as well as the publication of national annual health reports. However, these protocols are not legally binding, hence the organization acts as an adviser on health issues but cannot impose policies on governments.

On the other hand, the Health Assembly shall only have jurisdiction over topics concerning sanitary and quarantine requirements, medical nomenclature, standards concerning safety of pharmaceutical products as well as their advertisement and finally the safety of diagnosis procedures.

Agenda Item: Covid-19

A. Fundamental key terms

1. Pandemic: the new coronavirus (covid-19) is the perfect model for understanding what exactly a pandemic is. When the growth rate of new cases 'skyrockets' and each day cases grow more and more, it can be said



that we are dealing with a pandemic. However, the WHO classifies outbreaks by their dissemination. So, if a virus had been seen in several countries or even continents and if it has a great growth rate we can classify it as a pandemic.¹

- 2. Epidemic: The Centers for Disease Control and Prevention (CDC) says that 'an unexpected rise in the number of cases in a specific area is an epidemic'. For example, If Common cold cases double compared to the previous year in Istanbul, we could say that it is an epidemic.
- **3.** Endemic: Malaria is an endemic outbreak of the African continent. It is when a particular disease is constantly present in a certain area.
- 4. Basic reproduction number (R0): It is an epidemiologic metric used to describe the contagiousness or transmissibility of infectious agents. R_0 is affected by numerous biological, socio-behavioral, and environmental factors that govern pathogen transmission and, therefore, is usually estimated with various types of complex mathematical models, which make R_0 easily misrepresented, misinterpreted, and misapplied.
- **5.** Epidemiology: It is a science field that studies the distribution and dispersion of diseases, epidemics, accidents, and situations about health in a population. Scientists apply to this field to improve treatments or decrease disease occurrence.
- 6. **Prophylaxis:** Implementations of drugs, dental cleaning, vaccines, birth control or other medical procedures such as surgery to prevent a disease from spreading or progress. For example, after a surgical operation an antibiotic is given to the patient to prevent any possible infections.
- 7. **Complication:** Worsening of a disease. If a new symptom occurs due to disease itself, treatment, or surgery the medical word refers to the condition as complication.
- 8. Infectious disease: Medical disorders caused by harmful organisms (pathogens) such as bacteria, viruses, fungi or parasites. They usually spread from living organisms to living organisms such as human to human (or camel to human like in MERS virus). Also they may be colonized in water, food or stool and get into the human body by contamination.²



¹ https://www.webmd.com/cold-and-flu/what-are-epidemics-pandemics-outbreaks

² https://my.clevelandclinic.org/health/diseases/17724-infectious-diseases

- **9.** Oropharyngeal swab: A method of taking a clinical test sample of secretions from the back of the throat and tonsillar beds.
- **10. Nasopharyngeal swab** : A method for taking a clinical test sample of nasal secretions from the deep nasal area.

B. Introduction to the topic

The Covid-19 surely affected every human being on the globe. Even in the most isolated places on earth some kind of precaution has been implemented. Humankind faced the most challenging months of the 21st century respectively. The death count of covid-19 still rises and as of March 2024 it is estimated that over 7 million people have died from the disease. Please imagine the severity of the outbreak like this; 91 out of 196 countries in the UN have a population under 7 million.³

C. Anatomy of a pandemic

Before understanding the dynamics of a pandemic we should firstly discuss what can cause a pandemic. Only infectious diseases can lead to a pandemic. The Covid-19 disease (Covid-19 is the name of the disease for



pic. 1 adenoviruses in electron microscope



³ https://data.who.int/dashboards/covid19/cases

example, several viruses can cause common cold) is caused by a virus called coronavirus SARS-CoV-2.

Viruses are significantly diverse in terms of disease they cause and organs they attack. They

consist of a capsidal protein like an envelope and a nucleic acid (DNA or RNA). Viruses multiply their number like one divided into two, two divided into four... this is called replication. All the other life forms contain DNA as the genetic material and RNA as a messenger protein, however viruses have either DNA or RNA which makes them unique. Viruses do not carry organelles like ribosomes or mitochondria, instead they use the organelles of the infected human cell to multiply their numbers like a parasite. Viruses actually are not living organisms. A French microbiologist, André Lwoff, defined the viruses by looking their characteristics;⁴

- Possessing only one type of nucleic acid. (DNA or RNA)
- Multiplying in the form of their genetic material, i.e., either RNA or DNA. This is not strictly true, since hepatitis B virus is a DNA virus but replicates as an RNA intermediate. Retroviruses are RNA viruses but replicate through DNA.
- Unable to undergo binary fission and
- Lacking an energy system, including mitochondria and ribosomes. (uses the organelles of the host cell)⁵

Viruses are basically a package of a protein called nucleic acid protected by a protein shell. The main purpose of viruses are infecting a host cell to use the cell's organelles to replicate themselves. A virus wants to use the host cell as much as possible, it does not want to kill the cell immediately. Because, if a virus kills a cell it has to find another cell to replicate so if a virus is lethal to humans generally shorter the pandemic will go.



⁴ <u>https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7122971/</u>

⁵ LWOFF A. The concept of virus. J Gen Microbiol. 1957 Oct;17(2):239-53. doi: 10.1099/00221287-17-2-239. PMID: 13481308.



pic. 2 please examine the chart to imagine the size of a virus

The world continues to experience numerous epidemics and pandemics that can affect thousands of lives. Despite our advanced medical techniques and technology, humankind is still to be challenged with new potential pathogens that may result in an epidemic or a pandemic. On December 12, 2019 the first case was reported in Wuhan, China. The local hospitals reported the case as 'pneumonia of unknown etiology'. If you cannot identify a disease's etiology you cannot administer a treatment. You can only try to reduce the complications and give symptomatic treatment. In modern medicine 'treatment to etiology' is a must. The doctor cannot prescribe a medicine just by checking a finding. they have to be certain about the exact disease to prescribe the appropriate treatment. Of course one plus one never equals two in medicine and the exception proves the rule.

The WHO reports that SARS-CoV-2 transmission occurs via respiratory droplets and contact routes. Droplet transmission occurs through direct contact when a person is exposed to infectious



respiratory droplets when they are within 1 meter of someone with respiratory symptoms including coughing and sneezing. Being within this distance puts the individual at risk of having their mucous membranes, including their mouth, nose and eyes, exposed to the droplets. Transmission also can occur via indirect contact by way of fomites on surfaces in the immediate environment around the infected person. The pre-symptomatic incubation phase is when the virus can spread which usually takes about 10-14 days. More than half of the residents with positive test results for SARS-CoV-2 infection were pre-symptomatic and most likely contributed to transmission. ⁶ In terms of infectivity. It was believed that in the early phases of SARS-CoV-2 pandemic the R0 ranged from 2.2 to 2.7. This indicates that 2.2-2.7 people can become infected with SARS-CoV-2 from a single positive individual. This number can fluctuate as the pandemic spreads, particularly one improved control measures are implemented. The R0 of SARS-CoV was calculated to be around 3. Since infected individuals were more successfully isolated the SARS-CoV epidemic was more under control than SARS-CoV-2.

D. Diagnostics, management, and treatment

1- Diagnostics

COVID-19 medical analysis has been in particular based on signs and symptoms and signs and symptoms evaluation and shown by means of nucleic acid amplification tests. The gold standard is RT-PCR(Reverse Transcription Polymerase Chain Reaction) of nasopharyngeal or oropharyngeal swabs. The RT-PCR is a genetic test combining opposite transcription of Ribonucleic acid (RNA) into complementary Deoxyribonucleic acid (DNA), and amplification of precise DNA objectives the use of RT-PCR. PCR based methods are easy, incredibly sensitive and pretty specific however take a long time to get a result.

Though RT-PCR is commonly used for diagnosing COVID-19, it is not suitable for tracking disease progression or identifying prior infections and immunity on a large scale. Serological testing involves analyzing blood serum or plasma and has been extended to include testing other biological fluids like saliva and sputum for IgM and IgG antibodies. This examination is crucial in the field of epidemiology and in the development of vaccines, evaluating the short-term (days to weeks) and long-term (years or permanence) patterns of antibody response, as well as the



⁶ https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7158985/

⁷ Diagnosis Methods for COVID-19: A Systematic Review, Micromachines. 2020.

quantity and variety of antibodies. IgM is first noticeable in the bloodstream, a few days after infection and remains present for a few weeks before transitioning to IgG.

Diagnostic imaging, like computer tomography, has been important in diagnosing and treating sufferers with COVID-19. CT of the chest is typically used to diagnose pneumonia. It may be utilized to diagnose COVID-19 and reveal the development of injuries and locate any alterations in sufferers with bad RT-PCR checks and everyday X-ray images. AI, a new generation in diagnostic imaging, has helped decorate the analysis and outlook for diverse ailments like pneumonia.

A group of researchers demonstrated the effectiveness of AI in aiding in the detection of COVID-19 in individuals with COVID-19 through the use of CT scans, obtaining a high level of sensitivity and specificity (90%). This article aims to evaluate the efficacy of existing COVID-19 diagnostic ¹⁰tools by reviewing published studies and clinical experiences with coronavirus patients.

2- Management

The management of COVID-19 has advanced drastically because of the onset of the pandemic, with updates to recommendations reflecting new evidence and insights into the treatment and care of patients with COVID-19. As of the latest on 18 August 2023 includes the "Clinical management of COVID-19: Living guideline; through the World Health Organization (WHO) gives comprehensive recommendations tailored to healthcare vendors handling patients with COVID-19. This dwelling document is continually updated as new proof emerges, ensuring that the pointers are based on the maximum modern-day and sturdy information available. Here are a number of the key points highlighted in the guideline as of the modern update:¹¹

a. Early Identification and Management



⁸ ACS Cent. Sci. 2020, 6, 5, 591–605, April 30, 2020

⁹ Radiography, Volume 27, Issue 2, May 2021, Pages 682-687

¹⁰ Mapping the landscape of artificial intelligence applications against COVID-19,medarXiv,2020.

¹¹ Clinical management of COVID-19: Living guideline, 18 August 2023

Early popularity of both symptomatic and asymptomatic cases of COVID-19 is crucial. Health care vendors are encouraged to apply an aggregate of clinical symptoms and symptoms as well as checking out to confirm the prognosis.

The file recommends tracking the clinical symptoms and signs for worsening conditions, specifically in high-risk sufferers which includes the aged and people with underlying conditions.

b. Use of Therapeutics

Antiviral remedies: As of the present day update, remdesivir stays recommended for sufferers with severe COVID-19. Newer antivirals like nirmatrelvir-ritonavir can also be considered for early-degree patients at excessive danger of development to severe sickness.

Immunomodulators: For patients with excessive or vital COVID-19, using corticosteroids inclusive of dexamethasone is recommended. Other anti-inflammatory treatments, consisting of interleukin-6 inhibitors, may be considered based totally on clinical judgment and availability.

Supportive remedies: Ensuring adequate hydration, fever control, and nutritional guidance are crucial additives of supportive care.

c. Respiratory Support

Non-invasive air flow strategies and oxygen therapy are recommended for sufferers with hypoxemic respiratory failure, relying on the severity of their situation.

Invasive mechanical air flow ought to be considered for patients with acute breathing distress syndrome (ARDS) when other styles of aid are insufficient.

d. Preventive Measures

Continued emphasis on vaccination as a number one preventive measure in reducing the severity and unfold of COVID-19.

Recommendations for retaining hygiene, physical distancing, and the use of masks in both healthcare and network settings to prevent the transmission of the virus.



e. Special Populations

Specific steering is furnished for managing COVID-19 in children, pregnant ladies, and different vulnerable populations. This consists of tailor-made healing tactics and considerations regarding the timing and form of healing interventions.

f. Children

Clinical Presentation and Severity: Children commonly present milder signs as compared to adults however can revel in excessive cases and headaches, such as multisystem inflammatory syndrome in children (MIS-C).

Therapeutics: The use of antiviral treatments in children ought to be guided via the modern day pediatric-unique evidence. Corticosteroids and different immunomodulating capsules are endorsed most effective in severe cases or particular situations like MIS-C underneath pediatric steering.

Vaccination: Vaccination suggestions are based totally on age eligibility and advantage-chance analysis in numerous pediatric age companies.

g. Pregnant women

Risk: Pregnant women with COVID-19 are at a better chance for excessive infection and unfavorable pregnancy consequences in comparison to non-pregnant girls of reproductive age.

Management: Therapeutic interventions ought to don't forget each the fitness of the mother and the fetus. For instance, antivirals including remdesivir are considered safe and can be used, especially if the potential blessings outweigh the dangers.

Delivery: The timing of transport need to usually not be dictated by using maternal COVID-19 status except required for other obstetric reasons or extreme maternal contamination. Multidisciplinary management which includes obstetricians, neonatologists, and infectious disease experts is usually recommended.

Vaccination: Due to the increased risk of serious side effects, pregnant women should be given priority for vaccination.



h. Vulnerable Populations

Definition: This group includes older adults, individuals with comorbidities (e.g., cardiovascular sickness, diabetes), immunocompromised sufferers, and those residing in settings in which social distancing is challenging (e.g., care houses, refugee camps).

Management: Proactive monitoring for signs and early intervention is essential. Tailored therapy changes may be wanted primarily based on underlying fitness situations and the potential interaction of COVID-19 remedies with present medications.

Protective Measures: Enhanced preventive measures, inclusive of vaccination, are important in these organizations to lessen transmission and mitigate extreme effects.

i. Ethical Considerations

Ethical considerations in all specialties include ensuring equitable access to care, informed decision-making that respects patient autonomy, and personalized communication that addresses the unique needs and understandings of each group

3- Rehabilitation

a. Objectives of Rehabilitation

Restore Function: Help sufferers regain misplaced skills and go back to everyday sports.

Reduce Disability: Address lingering physical, respiration, cognitive, and mental impairments.

Promote Quality of Life: Support sufferers in improving their normal fine of life.

b. Components of Rehabilitation

Physical Therapy: Aims to improve muscle electricity, staying power, and respiration characteristic.



Occupational Therapy: Helps sufferers reap independence in each day activities.

Speech and Language Therapy: Addresses swallowing difficulties and speech issues.

Psychological Support: Provides interventions for anxiety, despair, or PTSD.

Neurological Rehabilitation: Assists people with neurological affects from the virus.

c. Setting for Rehabilitation

Inpatient and Outpatient Facilities: Based on the severity and wishes, rehabilitation can arise in specialized centers or via regular health facility visits.

Home-Based Rehabilitation: Encouraged for its comfort and safety, specifically appropriate for mild to moderate cases.

d. Monitoring and Adjustment

Rehabilitation plans should be flexible, adapting to the patient's progress and changing desires, with everyday tests to monitor progress.

This method guarantees that every patient's unique healing desires are met, facilitating a smoother and greater powerful transition again to health and daily existence.

e. Ethical Considerations

Ethical principles in handling get admission to remedy, prioritization of therapeutic interventions, and communique with sufferers and their families are underscored in the rule of thumb.

f. Equitable Access to Treatment



Resources such as medications and healthcare centers must be dispensed fairly primarily based on scientific desires, ensuring transparency and justice in allocation choices.

g. Prioritization of Therapeutic Interventions

Implement clinical triage structures to prioritize sufferers who maximum want care without discrimination based on age, race, disability, or other unrelated factors.

h. Communication with Patients and Families

Ensure knowledgeable consent by means of supplying clean, comprehensive statistics about treatments and their dangers and blessings.

Maintain affected person confidentiality and deal with conversation with families sensitively, especially whilst visitation is restricted.

i. End-of-Life Care

Provide palliative care that respects the distinction of demise sufferers and adheres to their advanced directives and expressed needs.

j. Global Solidarity and Cooperation

Encourage sharing of knowledge, data, and sources the world over to correctly deal with the pandemic.

These concepts are crucial to maintain trust, ensure moral clinical practices throughout the pandemic, and control public health responsibly.

k. Monitoring and Adapting Strategies

The guiding principle advises on regular monitoring of treatment outcomes and evolving medical proof to conform healing techniques for this reason.

The image below, prepared by Anadolu Agency in 2020, includes sample measures taken by countries to cope with the past pandemic.¹²



¹² https://www.aa.com.tr/en/info/infographic/18265

Steps taken by countries to fight COVID-19 pandemic The world faces a big challenge as the novel coronavirus escalated into a global pandemic. Countries have taken measures in many areas, including healthcare services, work arrangements, the economy, and educational institutions.

 No Yes Partially No data 	C TURKEY	us 📲	SPAIN	ITALY	FRANCE	GERMANY	Xn 🗰	CHINA	IRAN	BELGIUM	📀 BRAZIL	RUSSIA	CANADA	NETHERLAND	+ SWITZERLAN	PORTUGAL	AUSTRIA	INDIA	IRELAND	- ICDACI
Are border gates closed?	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
Are international flights suspended?	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
Are domestic flights suspended?	•	•	•	•	•	•	•	•	•	•	•	•	•	_	•	•	•	•	•	
Are there restrictions on domestic travel?	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
Are there curfews or other restrictions?	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Are layoffs banned?	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
Did retirees get a raise in pensions?	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
Are coronavirus tests free?	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Is coronavirus treatment free?	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
Are masks available for free?	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
Are there enough respirator masks?	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
Is there enough medical equipment?	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
Is wearing masks outdoors mandatory?	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
Are healthcare workers getting additional financial support?	•	•	•	•	•	•	•	•	•	•	-	•	•	•	•	•	•	•	•	
Are there enough hospital beds?	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
Are there enough intensive care units?	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
Do hospitals have enough medicine?	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
Are there enough coronavirus test kits?	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
How many citizens were evacuated from other countries?	25 K	63 K	24 K	60 K	148 K	240 K	7.5 K	1.46 K	-	6 K	13 K	150 K	5 K	5 K	2.7 K	7.5 K	7.5 K	1.25 K	250	-
How many countries did they supply medical aid to?	30	VERY FEW	-	3	•	5	1	120	•	•	•	10	•	1	5	-	1	31	•	1
Was the private sector offered tax deferments?	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Do public banks provide credit support to companies in need?	•	•	•	•	•	•	-	•	•	-	•	•	•	•	•	•	•	•	-	
Are people in need provided financial support?	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	

pic.3 possible restrictions

4-Treatment

COVID-19 causes a range of symptoms ranging from mild respiratory issues to severe pneumonia and systemic inflammation. Diagnostic



treatment usually includes fever control, hydration, and ensuring adequate nutrition. In more severe cases, specific antiviral agents such as remdesivir are recommended to indicate hospitalized patients. In cases of severe disease requiring oxygen, dexamethasone is used. Tocilizumab can be given to critically ill patients to manage the cytokine release syndrome. These treatments are designed to reduce the severity of symptoms, support the immune system, and prevent complications, consistent with the patient's clinical condition and existing healthcare guidelines.

Patient Group	Drug	Recommended Dosage	Administration	Duration	Condition Treated
		300 mg		Twice	
Adults	Nirmatrelvir-ritona	nirmatrelvir and		daily for 5	Mild to Moderate
(General)	vir	100 mg ritonavir	Orally	days	COVID-19
		200 mg loading			
		dose, then 100 mg		5 to 10	
	Remdesivir	daily	Intravenously	days	Severe COVID-19
				Once	
				daily for	
			Orally or	up to 10	Severe COVID-19
	Dexamethasone	6 mg	intravenously	days	(requiring oxygen)
					Critical COVID-19
		8 mg/kg (max 800		Single	(cytokine release
	Tocilizumab	mg)	Intravenously	dose	syndrome)
		200 mg on day 1,		5 to 10	Hospitalized, requiring
Children	Remdesivir	then 100 mg daily	Intravenously	days	oxygen
		0.15 /1 ()	0.11	II (10	
	Descention	0.15 mg/kg (up to)	Orally or	Up to 10	D
	Dexametnasone	6 mg max) daily	Intravenously	days	Requiring oxygen
		8 mg/kg (max 800		Single	Critical cytokine release
	Tocilizumab	mg) single dose	Intravenously	dose	syndrome
Pregnant		200 mg on day 1		5 to 10	
Women	Remdesivir	then 100 mg daily	Intravenously	days	Severe COVID-19
				Once	
				daily for	
			Orally or	up to 10	Severe COVID-19
	Dexamethasone	6 mg	intravenously	days	(requiring oxygen)
		200 mg loading			
		dose, then 100 mg		5 to 10	
Elderly	Remdesivir	daily	Intravenously	days	Severe COVID-19
				Once	
				daily for	
			Orally or	up to 10	Severe COVID-19
	Dexamethasone	6 mg	intravenously	days	(requiring oxygen)



_					
					Critical COVID-19
		8 mg/kg (max 800		Single	(cytokine release
	Tocilizumab	mg)	Intravenously	dose	syndrome)

E. Past examples of pandemics and epidemics

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The Ebola epidemic caused major struggles in West Africa from 2013 and 2016, resulting in over 11,000 deaths. The virus's emergence was initially reported to the WHO in March 2014. The organization responded by dispatching field epidemiologists to West Africa, where they initiated initial response measures, similar to those used in previous Ebola outbreaks, including contact tracing, laboratory support, and infection control mechanisms. On August 8, 2014, the WHO formally designated Ebola as a Public Health Emergency of International Concern (PHEIC) in response to growing public pressure. Five months had passed since the WHO was initially informed of the Ebola threat, at which point there had been 1711 cases and 932 fatalities. Undoubtedly, the unusual scope of the outbreak was influenced by this delay.

Its role in training healthcare workers and burial teams in infection control, community engagement activities and providing epidemiological data was key in order to control the rapid spread. Furthermore, the organization published numerous technical guidance documents, hosted a series of meetings on vaccine options, developed diagnostic tools and expanded laboratory services.

In accordance with Epidemic the and Pandemic Preparedness and Prevention (EPP) team; outbreaks can be controlled through community engagement, active case finding, contact tracing. ring vaccination when recommended,



pic.3 a healthcare worker during ebola epidemic



laboratory support, early supportive care and safe and dignified burials. Moreover, research is continuing to develop and the organization evaluates vaccines, diagnostics and therapeutics.

Moving on to the management of Cholera, the disease originated in the Ganges delta of India and spread throughout the world during the 1800s. Millions of people died in six more pandemics that struck every continent. Beginning in South Asia in 1961, the pandemic spread to Africa in 1971 and the Americas in 1991. Nowadays, cholera is endemic in many nations.

In order to tackle the global threat, the WHO created the Global Task Force on Cholera Control (GTFCC). The GTFCC is a team of partners active in cholera control globally, including academic institutions, non-governmental organizations and United Nations agencies. The specific goals of this team were to encourage the creation and application of international policies to support the growth of global capacity for cholera prevention and control; assist nations in putting into practice efficient cholera control measures and tracking their success; provide operating manuals and technical guidelines; encourage the creation of a research agenda on methods for cholera management and prevention in impacted nations; and finally raise awareness.

Not to mention, the World Health Organization has been crucial to the development of illness treatments and vaccinations as well as their dissemination to susceptible populations. This last step was accomplished by creating "Cholera kits," which guarantee the timely and efficient distribution of supplies required for both the diagnosis and treatment of cholera outbreaks.

F. Measures taken in previous pandemics

Generally, measures applied by different governments as well as the World Health Organization go through vaccination kits, prevention efforts, distribution of medical instruments, management of cadavers in a safe manner, investment in investigation and other policies going through three main steps: prevention, management during the crisis and supervision of the decrease of numbers.

In previous medical crises the Epidemic and Pandemic Preparedness and Prevention team states that community involvement, proactive case



discovery, contact tracing, ring vaccination when advised, laboratory support, early supportive care, and respectful and safe burials are effective ways to contain outbreaks. Additionally, research is still being conducted, and the agency assesses medications, diagnostics, and immunizations.

Furthermore, the World Health Organization has played a critical role in the creation of vaccines and illness treatments, as well as in getting them into populations that are vulnerable.

VI. Further Reading

- <u>https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7403483/#B22</u>
- https://pubmed.ncbi.nlm.nih.gov/34374448/
- <u>https://www.cdc.gov/museum/timeline/covid19.html</u>
- <u>https://www.who.int/emergencies/diseases/novel-coronavirus-2019/interactive-timeline</u>
- https://go.drugbank.com/drug-interaction-checker

