

Potential Therapies of COVID-19 Drug - A Review

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ABSTRACT

Coronavirus disease 2019 or novel coronavirus 2019 is referred as COVID-19. SARS-CoV-2 is the virus that causes the infection (severe acute respiratory syndrome coronavirus 2). Since the need for vaccine was critical, the government and private sector invested significantly more money in its growth. A questionnaire was distributed among people of different occupations within India and other countries to study the awareness of people on the potential therapies of COVID-19. The questionnaire was sent to 205 people and 201 responses were obtained and 4 were ignored. The study was made to analyze how many people are aware of the COVID-19 and its vaccines. We also studied and reviewed the potential therapies in COVID-19.

Keywords: COVID-19, COVID-19 medicine, Covaxin, Covishield, Plasma therapy, Treatment of COVID-19.

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INTRODUCTION

Coronavirus 2019 is abbreviated as COVID-19. It was discovered in an old lady in Wuhan, China in November 2019 and has since spread over the world. Currently, millions of cases have been documented, with a decent recovery rate.^[1] However, albeit a few medications have been employed in this because of their qualities, and some vaccines are currently used like Covaxin and Covishield and plasma therapy. In the world, all the pharmaceutical company is giving their best for cure it.^[1,2] This virus is spread by community close by face, through handshake, through sneezing on public, etc. and the symptoms of this virus^[3] is throat pain, cold, fever, loss of taste, headache, problem in breathing. Some drugs are currently being used in this virus,^[4] such as Hydroxychloroquine, Chloroquine, Remdesivir, Favipiravir, Antibiotics, Corticosteroids, Tocilizumb, Itolizumb, Convalescent plasma therapy, Covishield, and Covaxin.

But there are some side effects of taking these drugs like arrhythmias and higher mortality. The only mode of transmission of this virus is ALPHA and BETA. It can infect humans, if the person is infected there is might by reasons of taking an infected food. So there is a major cause of animal to human transmission of the virus, and further this virus transfer to the healthy person due to close contact with an infected person. It may progress to pneumonia, acute respiratory distress syndrome (ARDS), and multi-organ dysfunction.^[5] Till now (5th March 2020), there have been roughly 96000 recorded cases from coronavirus disease 2019 and 3300 recorded fatalities. The higher mortality rate is expected to be between 2 and 3%. The virus can be detected in respiratory secretions using specific molecular assays. Normal/low white cell counts, as well as high C-reactive protein (CRP), are common test results (CTR). Even in persons with no symptoms or moderate illness, a computed tomographic chest scan is generally abnormal.^[6]

Antiviral Drugs Approved or Under Evaluation to Treat COVID-19

Remdesivir

Remdesivir is the only medication for the treatment of COVID-19 approved by the Food and Drug Administration (FDA). Based on the available evidence, the COVID-19 Care Guidance Panel (CCGP-the Panel) makes recommendations for the use of antiviral

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drugs to treat COVID-19 in this section. Treatment decisions eventually rest with the patient and their health care provider, as with the control of any illness.^[4]

Chloroquine or Hydroxychloroquine With or Without Azithromycin

The Special committee advises against the usage of chloroquine or hydroxychloroquine, with or without azithromycin, in hospitalized patients for the care of COVID-19 (AI). The Team of Doctors advises against the use of chloroquine or hydroxychloroquine with or without azithromycin for the care of COVID-19 in nonhospitalized patients, and in clinical trials (AI). For the treatment of COVID-19, the Panel advises against the use of high-dose chloroquine (600 mg twice daily for 10 days) (AI).^[4,7]

Lopinavir/Ritonavir and Other HIV Protease Inhibitors

Except in a clinical trial, the panel advises against the use of lopinavir/ritonavir (AI) or other HIV protease inhibitors (AIII) to treat COVID-19.^[8]

Ivermectin

The Panel advises that ivermectin can not be used in the treatment of COVID-19, except in a clinical trial (AIII).^[8]

Antiviral Therapy

Because replication of the severe acute respiratory syndrome coronavirus 2 (SARS CoV2) is linked to several of COVID-19's clinical manifestations, antiviral therapies for the treatment of COVID19 are being investigated. These drugs inhibit viral entry (via the

serine protease 2 [TMPRSS2] transmembrane and angiotensin converting enzyme 2 [ACE2] receptor), viral membrane fusion and endocytosis, or SARS-CoV-2 3-chymotrypsin-like protease (3CLpro) and RNA dependent polymerase RNA activity.^[4] Antiviral treatment can have the greatest effect until the disease progresses into the hyperinflammatory condition that may defines the later stages of the disease, including serious disease, since viral replication can be especially active early in the course of COVID-19 important to consider the role of antivirals in treating mild-moderate, serious, and essential diseases.^[7]

Tocilizumab

It's an injectable medication that was first used to treat rheumatoid arthritis patients. Tocilizumab helps to stop an impending cytokine storm from affecting other organ functions as the immune system is already inflamed. Tocilizumab should be utilized in individuals who have opacity on both sides of their lungs, as well as in patients with moderate or vital IL-6 levels found in the lab.^[9] A 4–8 mg/kg is the first dosage (the suggested dose is 400 mg in 100 mL of 0.9% normal saline, with an infusion period of more than 1 hour). An extra submission will be made after 12 hours for patients who had a low initial efficacy (with same dosage as previously). The maximum amount of times a dose should be given is two, and a single dose can not be more than 800 mg. During the therapy with tocilizumab, no adverse drug reactions were identified.^[4]

Itolizumb

It is also an injectable medication that was previously used for the treatment of psoriasis, for which only partial findings are available. Both Itolizumab and Tocilizumab regulate hyperactive immune responses and cytokine storms, but their timing differs. Itolizumab is an anti-CD6 humanized IgG1 mAb that binds to CD6 domain 1, a receptor found on T effector cells that is responsible for priming, activation, and differentiation of T-cells. Itolizumab inhibits the co-stimulation pathway, inhibiting the proliferation of naive T-cells. This results in a considerable reduction in pro-inflammatory cytokines with the Th-1 and Th-17 pathways, such as IL-17A, TNF-, IL-6, IFN-, and IL-2. It works by reducing associated morbidity and mortality by immunomodulating effector activity and trafficking to the inflammatory site, saving Tregs and maintaining the antiviral answer. Itolizumab reduces the hallmark cytokines of hyperinflammation IL-2, IFN-, and TNF- through the Th-1 pathway and IL-17, IL-6, and TNF- through the Th-17 pathway. Itolizumab reduces the release of several cytokines and cell signaling transduction factors mainly affecting the Th-17 and Th-1 pathways by operating upstream at the Th-1 and Th-17 pathways, i.e. at effector cells, while drugs like primary cytokines produced downstream are blocked by tocilizumab or Anakinra. The findings for Tocilizumab and Anakinra are promising and support the theory of preventing cytokine storms, but they are tentative and are still being studied.^[10]

Antibiotics: e.g., Niclosamide, Ivermectin

Niclosamide, an anthelmintic compound, was discovered to be a potent inhibitor of SARS-CoV viral replication in Vero E6 cells at dose concentrations of 1.56 μ M or higher without

interfering with coronavirus binding. Another research found that niclosamide effectively inhibits MERS-CoV replication in VeroB4 cells by reducing SKP2-regulated BECN1 ubiquitination and the autophagic flux, with an IC50 value of 0.3 μ M. As a result, the potential for niclosamide to block SARS-CoV-2 cannot be overlooked. Ivermectin, a powerful anthelmintic, was first discovered to block the association between the integrase (IN) molecule of the human immunodeficiency virus (HIV)-1 and its nuclear transport receptor importin. Further research shows that it can stop the replication of a wide range of viruses, including dengue virus, flavivirus, and influenza. Ivermectin has recently been shown to suppress SARS-CoV-2 by up to 5000-fold in vitro after 48 hours. Its antiviral efficacy is thought to be due to inhibition of IMP/1-mediated nuclear import of viral proteins. It would be important to see how effective it is at inhibiting SARS-CoV-2 *in vivo*.^[11]

Vitamin C (Ascorbic Acid)

Vitamin C is a vital vitamin that has many functions in the human body. As a powerful antioxidant, it can neutralize free radicals and help avoid or reverse cellular damage. It also plays a role in a variety of biological processes, all of which are linked to immune health. Vitamin C also appears to be an effective antiviral agent, especially against influenza viruses. Vitamin C has been shown to improve growth and several studies have looked at the development of T lymphocytes and NK (natural killer) cells involved in the immunological response to viral pathogens. Moreover, helps to Reduce the production of reactive oxygen species (ROS) and reprogram the cytokine network linked to systemic inflammatory syndrome. In light of this, a phase II clinical trial (NCT04264533) evaluating high-dose IV vitamin C in ICU patients with serious COVID-19-associated pneumonia has begun in China(2). As supportive care, some hospitals have given contaminated patients 1500 mg of vitamin C. In China, 50 mild to extreme COVID-19 patients received high-dose IV vitamin C therapy. The daily doses ranged from 2 to 10 g and were administered via IV infusion over an 8 to 10 hours cycle. Both of the patients fully stabilized and were released after the oxygenation index increased in real-time. Furthermore, high-dose vitamin C (1.5 mg/kg body weight) has been used in clinical trials for decades, and an NIH panel found that this dose regimen is effective and has no significant side effects.^[4]

Convalescent Plasma Therapy

Convalescent plasma is collected from a COVID-19 survivor that had been resurrected. This plasma contains antibodies that can cure COVID-19 and alter the body's inflammatory response. For the treatment of patients with coronavirus disease, SARS coronavirus 2 (SARS-CoV-2) convalescent plasma is indicated (COVID-19). Treatment should begin as soon as possible, before the situation becomes serious infection progresses, which can be an effective indicator of the effectiveness of passive immunotherapy for influenza A, according to a meta-analysis. Less than 72 hours after the onset of symptoms, the patients were given convalescent plasma or placebo.^[13] A main objective occurrence (During follow-up, the patient develops a very severe illness) In the well-matched convalescent plasma and placebo groups,

this happened in 16 percent (13 of 80 patients) and 31% (25 of 80 patients), respectively of the population who are being treated to become better. Since excluding six patients who had a primary end-point case before infusion, a dose-dependent effect on antibody after infusion was found, and this effect was greater. The advantages of convalescent plasma in terms of secondary end points are similar to those in terms of the main end point. There were no significant side effects reported.^[12]

Covishield and Covaxin

Covishield (chAdOx1) is a chimpanzee adenovirus vaccine, whereas Covaxin (BBV152) is an inactivated SARS-CoV-2 viral vaccine. Covaxin employs an inactivated viral strategy. When a patient receives covaxin, they are essentially being injected with inactivated SARS-CoV-2 virus particles. An inactivated virus has no ability to induce infection in the body. It is effectively impotent. However, it will assist our bodies in producing SARS-CoV-2 specific antibodies. The process of an inactivated virus is simple: when covaxin is given, the inactivated virus particles are detected by the T-cells and B-cells. T-cells are responsible for memory formation. T-cells that recall the virus and B-cells that produce viral-specific antibodies are in charge of creating them. Basically, we're prepping our bodies to fight to fight illness in the future. T-cells and B-cells aid in the fight against viruses.^[14] Covishield employs a chimpanzee adenovirus strategy. When patients get Covishield, they are not given the genuine SARS-CoV-2 virus, but rather an adenovirus that infects chimps. The adenovirus utilized in the covishield vaccination is a strain of the virus that causes colds in chimpanzee.^[15]

The coronavirus gene has been added to the adeno virus utilized in covishield. The adenovirus penetrates the live cell when covishield is given, and the mutated gene tells the cell to generate SARS-CoV-2 spike proteins and show them on the cell surface. The T-cells and B-cells identify the spike proteins, and our bodies begin to create immunity. The distinction between covishield and covaxin is that Covishield makes the spike protein seen on the surface of coronavirus using adenovirus.^[15] Covaxin, on the other hand, is based on the coronavirus. Vaccines work in different ways, but they all have the same goal: to reduce the likelihood of hospitalization and death. Covishield and Covaxin are both effective against the B.1.617 (double mutant) strain.

HISTORY

In the last two decades, two cases have arisen where dangerous diseases have culminated in the crossover of animal beta coronaviruses to humans. The first of these was instance in 2002-2003 when a new β -genera coronavirus circulating in

Bats communicated with humans through an intermediary. In China's Guangzhou, a swarm of palm civet cats. Before being confined, this virus, known as the severe acute respiratory syndrome coronavirus, affected 8,422 people, mostly in China and Hong Kong, and caused 916 fatalities (mortality rate 11 percent). The Middle East respiratory syndrome coronavirus (MERS CoV), also of bat origin, originated in Saudi Arabia with dromedary camels as the intermediate host nearly a decade later in 2012, affecting 2494 individuals and causing 858 deaths (fatality rate 34%).^[16]

Epidemiology and Pathogenesis

This virus can affect people of all ages. Infection Large droplets created by symptomatic people while coughing and sneezing spread infection, although asymptomatic persons can also be infected individuals and prior to the development of symptoms.^[2] Patients may be compromised before symptoms last and even therapeutic recovery takes place. The length of incubation ranges from 2 to 14 days.

In research, angiotensin receptor 2 (ACE2) has been identified as the receptor by which the virus reaches the respiratory mucosa.^[17]

Treatment

Essentially, care is compassionate and symptomatic. To avoid being passed on to other people, The very first task is to maintain adequate separation between patients and healthcare professionals. With counselling regarding threat signs, minor illness should be treated at home. Normal ideas include ensuring hydration and food, as well as controlling sickness and cough. Antibiotics and antivirals, such as oseltamivir, should be discontinued in confirmed cases. In hypoxic individuals, oxygen should be delivered using nasal prongs, a face shield, a greater nasal cannula (HFNC), or non-invasive ventilation. There could be a need for Mechanical ventilation, as well as extracorporeal membrane oxygenation, are beneficial. In others, renal replacement therapy may be required. Antibiotics and antifungals are required if coinfections are suspected or proven.^[18] The function of corticosteroids has not been shown. Despite current world thinking and WHO guidelines, advocate against their use, Chinese recommendations prescribe short-term low-to-moderate dose corticosteroid therapy in COVID-19 ARDS.^[5] The WHO has released comprehensive guidelines for critical care treatment for COVID-19. As of now, no approved COVID-19 therapy is available(1). Antiviral medications, including ribavirin, On the basis of experience of SARS and MERS, lopinavir/ritonavir was used. Patients infected with lopinavir/ritonavir with ribavirin had improved results relative to those treated with ribavirin alone in a retrospective control trial in SARS patients.^[4]

SURVEY THE POTENTIAL THERAPIES OF COVID-19

A questionnaire was distributed among people of different occupations within India and other countries to study the awareness of people on the potential therapies of COVID-19.

NAME:

AGE:

PROFESSION:

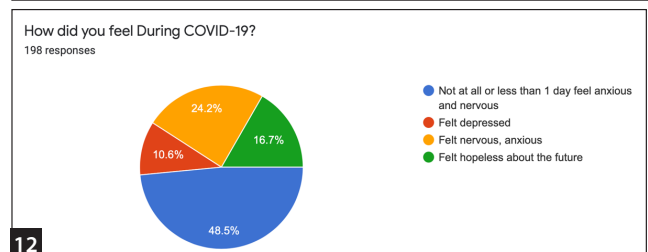
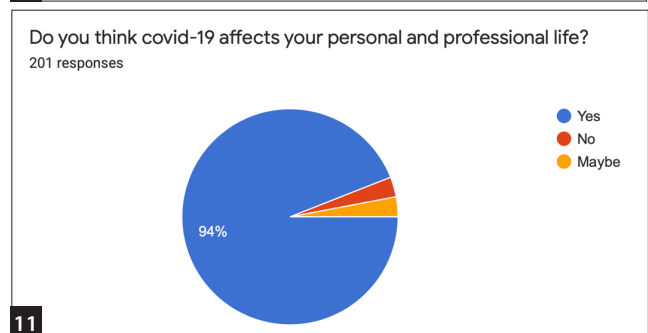
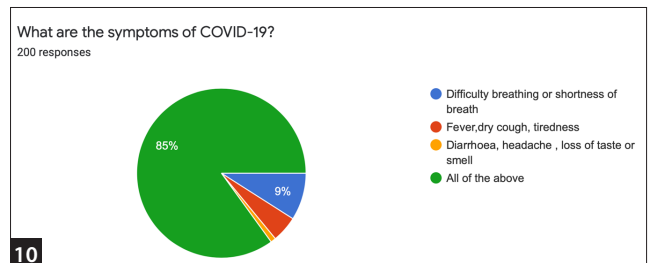
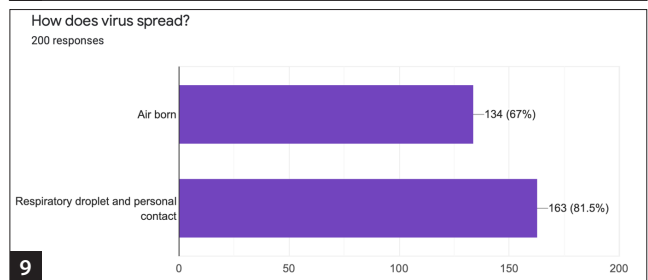
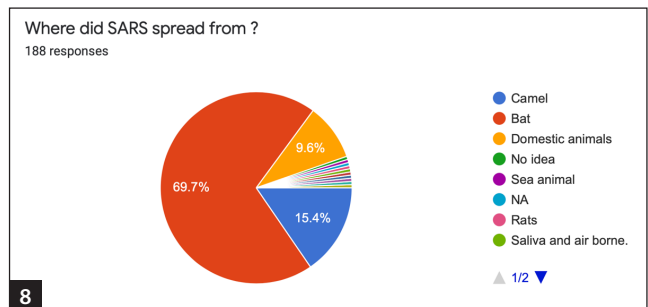
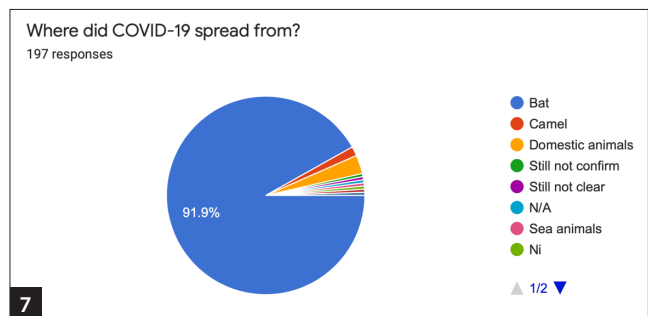
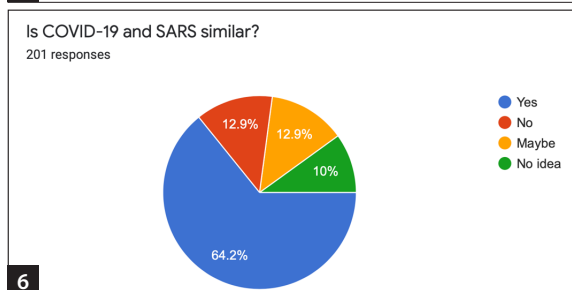
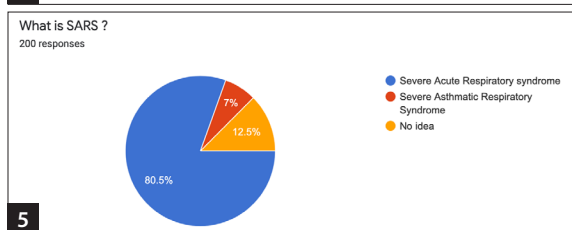
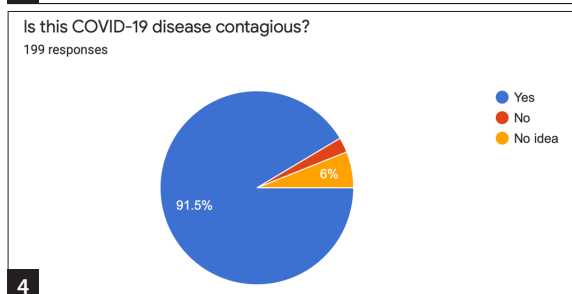
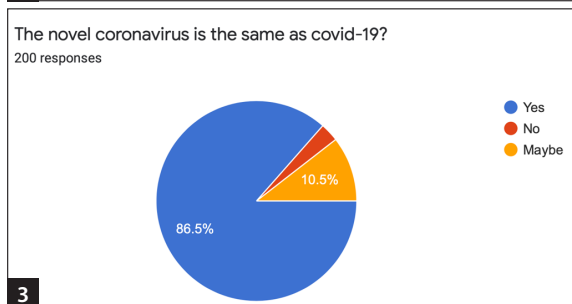
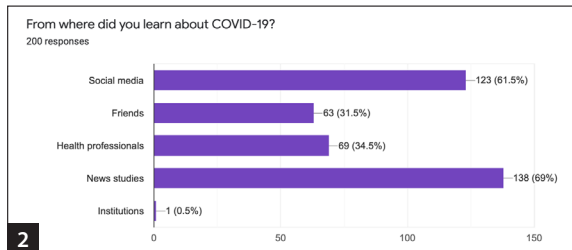
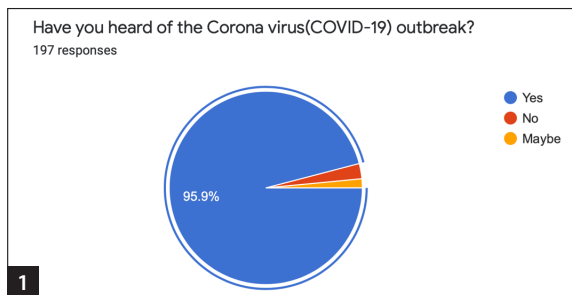
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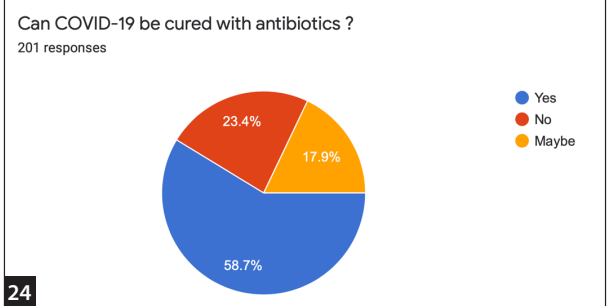
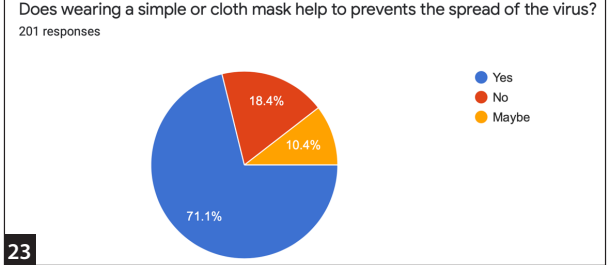
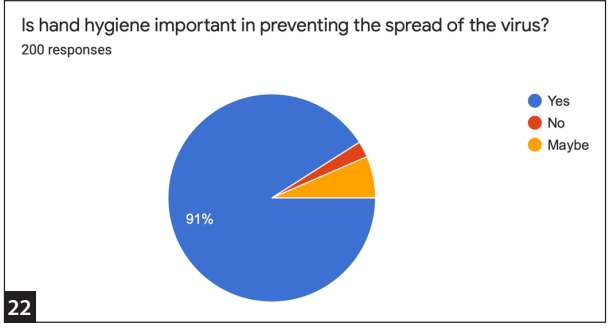
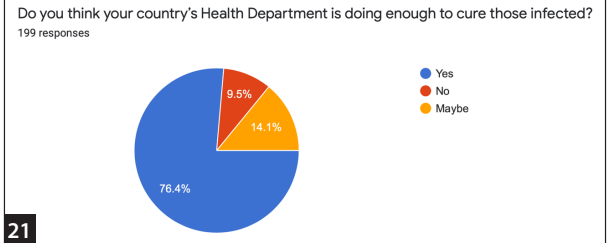
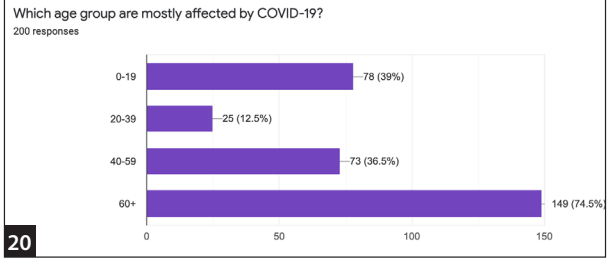
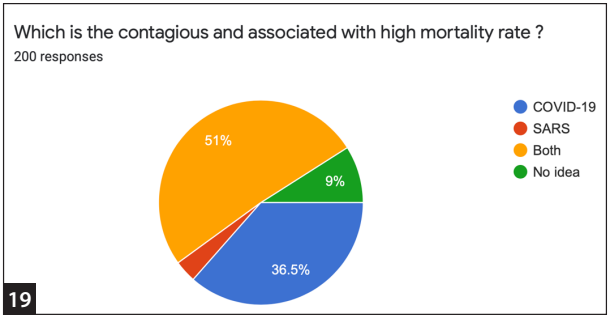
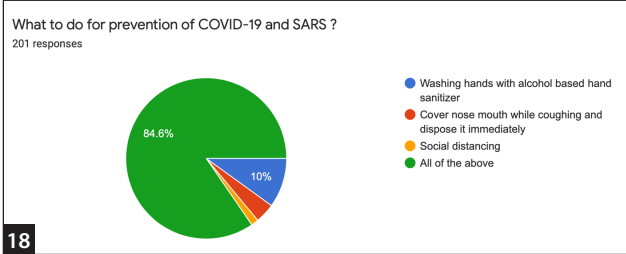
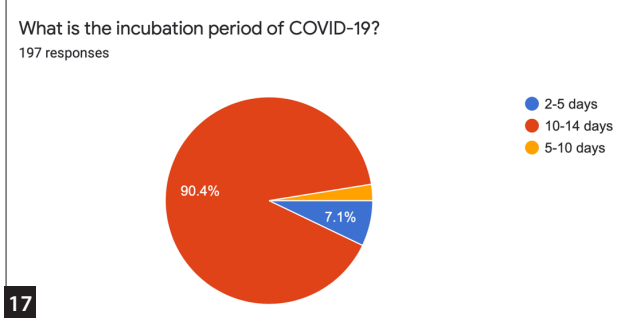
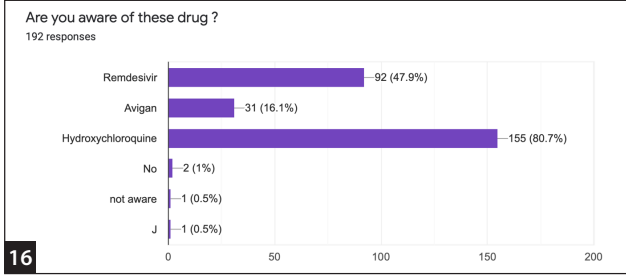
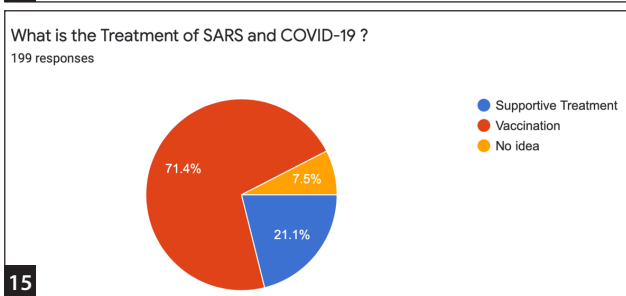
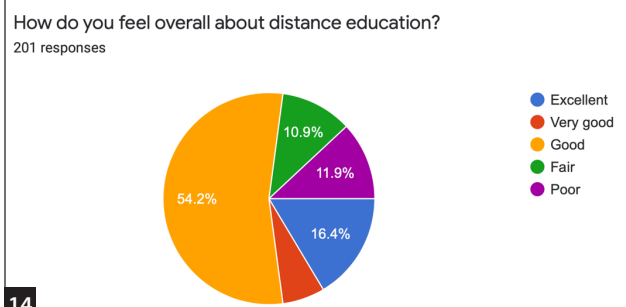
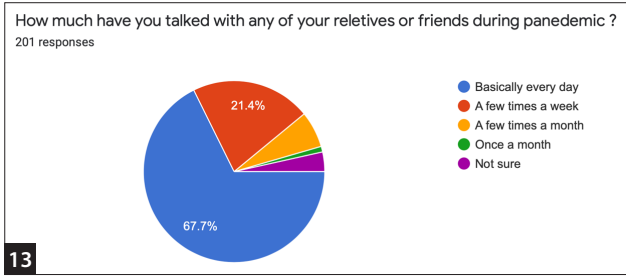
- Q.1 Have you heard of the Coronavirus(COVID-19) outbreak?
 a. Yes
 b. No
 c. Maybe
- Q.2 The novel coronavirus is the same as COVID-19?
 a. Yes
 b. No
 c. Not sure
- Q.3 From where did you learn about COVID-19?
 a. Social media
 b. Friends
 c. Health professionals
 d. News studies
 e. any other.....
- Q.4 Is this COVID-19 disease contagious?
 a. Yes
 b. No
 c. No idea
- Q.5 What is SARS ?
 a. Severe Acute Respiratory syndrome
 b. Severe Asthmatic Respiratory Syndrome
 c. No idea
- Q.6 Is COVID-19 and SARS similar?
 a. Yes
 b. No
 c. Maybe
 d. No idea
- Q.7 Where did COVID-19 spread from?
 a. Bat
 b. Camel
 c. Domestic animals
 d. any other
- Q.8 Where did SARS spread from ?
 a. Camel
 b. Bat
 c. Domestic animals
 d.any other.....
- Q.9 How does virus spread?
 a. Air born
 b. Respiratory droplet and personal contact
 c. Any other.....
- Q.10 What are the symptoms of COVID-19?
 a. Difficulty breathing or shortness of breath
 b. Fever,dry cough, tiredness
 c. Diarrhoea, headache, loss of taste or smell
 d. All of the above
- Q.11. Do you think COVID-19 affects your personal and professional life?
 a. Yes b. No
- Q.12 How did you feel During COVID-19?
 a. Not at all or less than 1 day
 b. Felt nervous, anxious
 c. Felt depressed
 d. Felt hopeless about the future
 e. Any other
- Q.13 How much have you talked with any of your relatives or friends during panedemic ?
 a. Basically every day
 b. A few times a week
 c. A few times a month
 d. Not sure
- Q.14 How do you feel overall about distance education?
 a. Poor
 b. Below Average
 c. Average
 d. Good
 e. Excellent
- Q. 15 What is the Treatment of SARS and COVID-19 ?
 a. Supportive Treatment
 b. Vaccination
 c. No idea
 d. Any other
- Q.16 Are you aware of these drug ?
 a. Remdesivir
 b. Avigan
 c. Hydroxychloroquine
 d. Any other
- Q.17 What is the incubation period of COVID-19?
 a. 2-5 days
 b. 10-14 days
 c. 5-10 days
 d. No idea
- Q. 18 What to do for prevention of COVID-19 and SARS ?
 a. Washing hands with alcohol based hand sanitizer
 b. Cover nose mouth while coughing and dispose it immediately
 c. Social distancing
 d. All of the above
- Q. 19 Which is the contagious and associated with high mortality rate ?
 a. COVID-19 b. SARS
 c. No idea d.Both

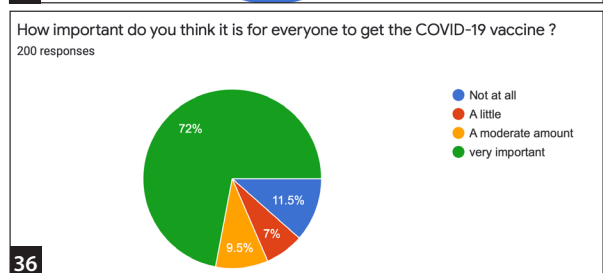
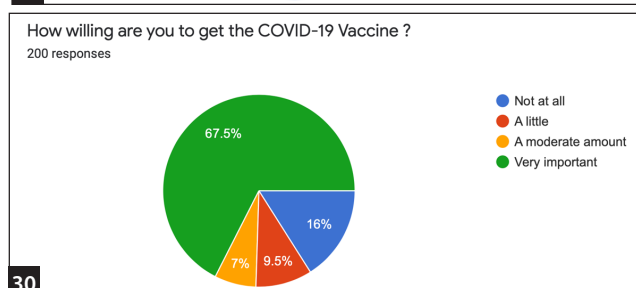
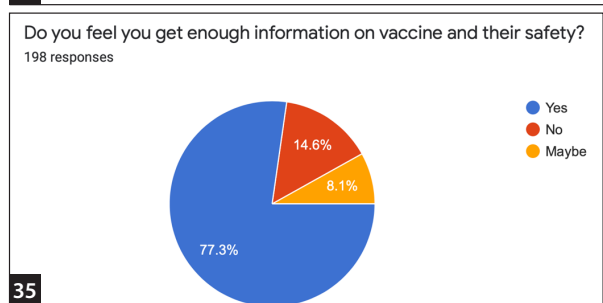
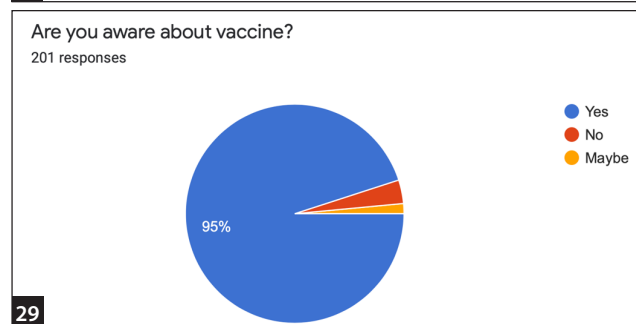
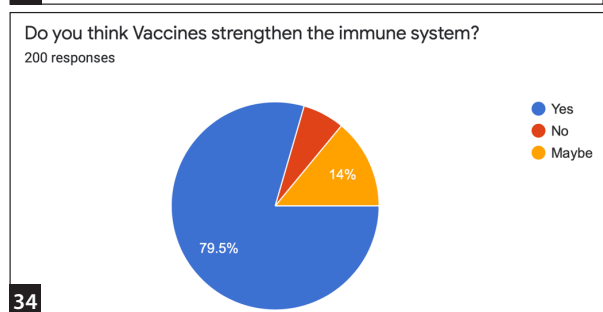
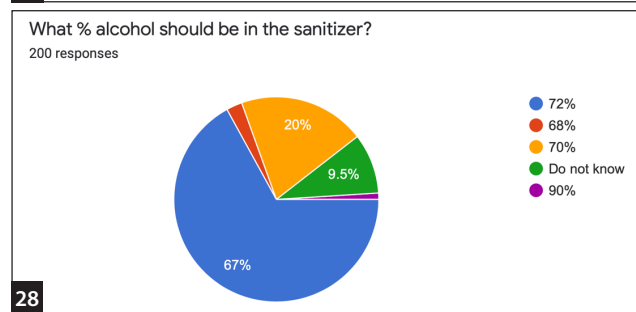
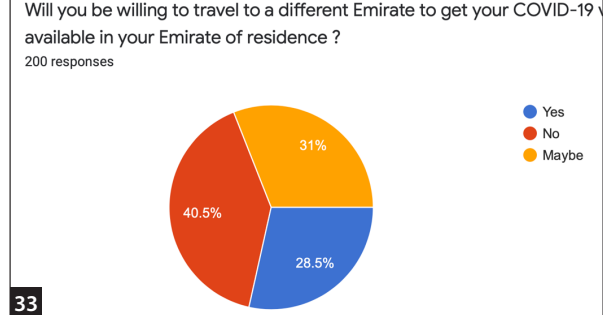
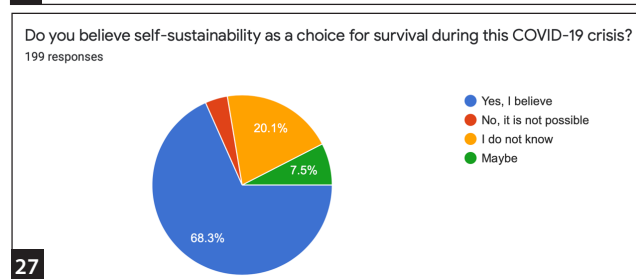
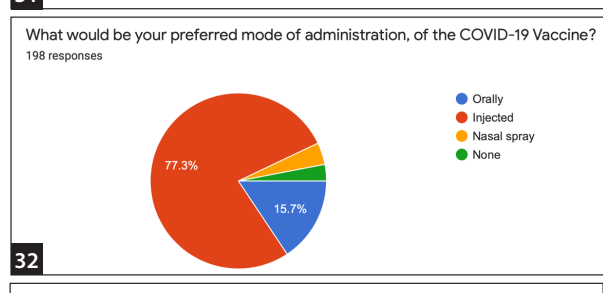
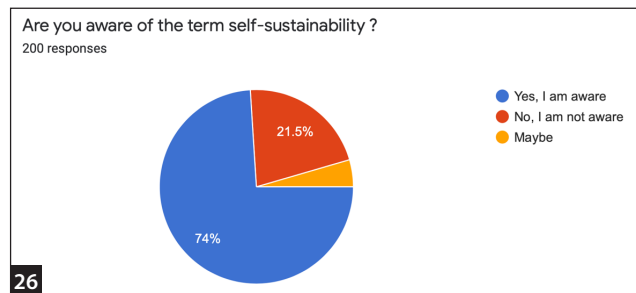
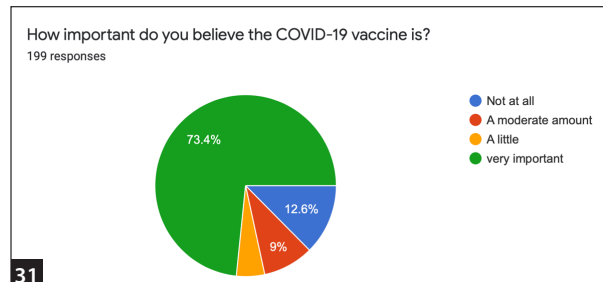
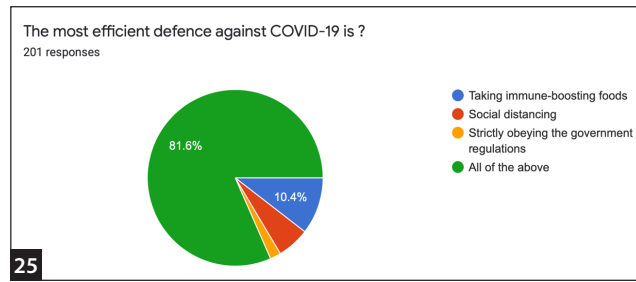
- Q.20 Which age group are mostly affected by COVID-19?
a. 0-19
b. 20-39
c. 40-59
d. 60+
- Q.21 Do you think your country's Health Department is doing enough to cure those infected?
a. Yes
b. No
c. Unsure
- Q.22 Is hand hygiene important in preventing the spread of the virus?
a. Yes
b.No
c. Maybe
- Q.23 Does wearing a simple or cloth mask help prevents the spread of the virus?
a. Yes
b. No
c. Maybe
- Q.24 Can COVID-19 be cured with antibiotics ?
a. Yes
b. No
c. Maybe
- Q.25 The most efficient defence against COVID-19 is ?
a. Taking immune-boosting foods
b. Social distancing
c. Strictly obeying the government regulations
d. All of the above
- Q.26 Are you aware of the term self-sustainability ?
a. Yes, I am aware
b. No, I am not aware
- Q.27 Do you believe self-sustainability as a choice for survival during this COVID-19 crisis?
a. Yes, I believe
b. No, it is not possible
c. I do not know
d. Maybe
- Q.28 What % alcohol should be in the sanitizer?
a. 72%
b.68%
c.70%
d. Do not know
- Q.29 Are you aware about vaccine?
a. Yes
b. No
- Q.30 How willing are you to get the COVID-19 Vaccine ?
a. Not at all
b. A little
c. A moderate amount
d. Very important
- Q.31 How important do you believe the COVID-19 vaccine is?
a. Not at all
b. A little
c. A moderate amount
d. very important
- Q.32 What would be your preferred mode of administration, of the COVID-19 Vaccine,?
a. Orally
b. Injected
c. Nasal spray
d. None
- Q.33 Will you be willing to travel to a different Emirate to get your COVID-19 vaccine, if it was not available in your Emirate of residence ?
a. Yes
b. No
c. Maybe
- Q.34 Do you think Vaccines strengthen the immune system?
a. Yes
b. No
- Q.35 Do you feel you get enough information on vaccine and their safety?
a. Yes
b. No
- Q.36 How important do you think it is for everyone to get the COVID-19 vaccine ?
a. Not at all
b. A little
c. A moderate amount
d. very important
- Q.37 Do you know anyone who has had a bad reaction to a vaccine?
a. Yes
b. No
- Q.38 Which vaccine is being used in India?
a. Covishield
b. Covaxin
c. Both
d. Any other.....
- Q.39 Do you trust the motives of pharmaceutical industry?
a. Yes
b.No
- Q.40 Are you aware about these different vaccines companies?
a. Bharat Biotech
b. Serum Institute
c. Biological E
d. Any other
- Q.41 Are you aware about side effect of COVID-19 vaccines?
a. Yes
b. No
c. Not sure
- Q.42 What are the side effect of COVID-19 vaccine?
a. Swelling
b. Mild fevers
c. Fatigue
d. Aches
e. Any other.....
- Q.43 If you have been vaccinated for COVID-19, did you experience any side effects?
a. Yes
b. No
c. I've not been vaccinated yet.

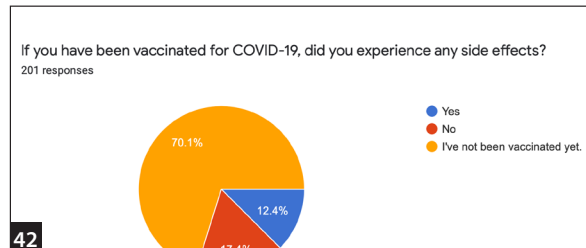
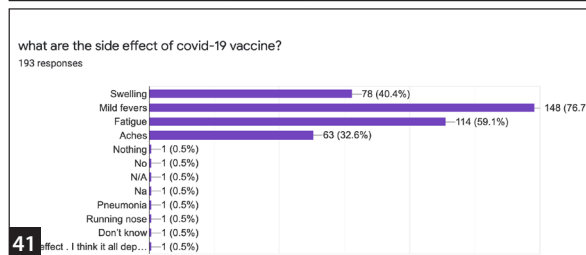
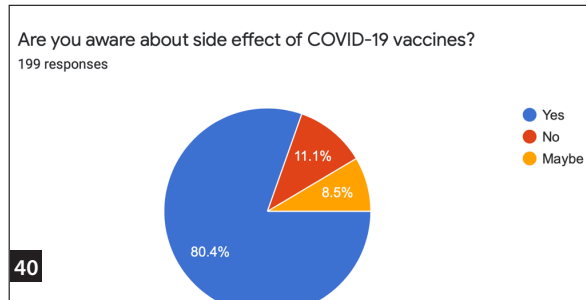
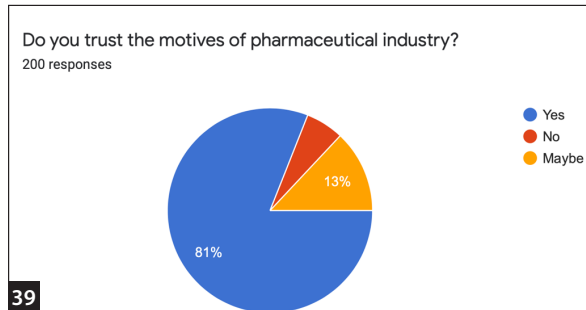
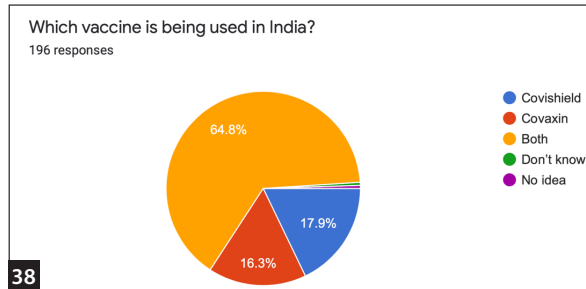
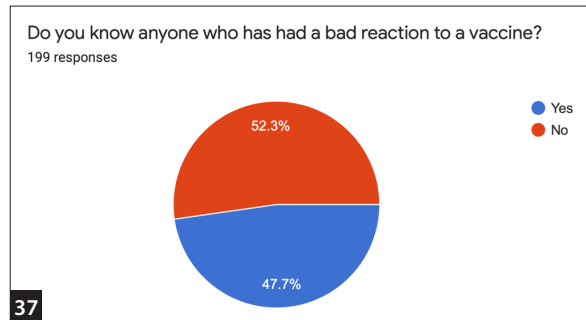
RESULT AND DISCUSSION

Result









DISCUSSION

The questionnaire was sent to 205 people and 201 responses were obtained and 4 were ignored. The study was made to analyze how many people are aware of the COVID-19 and COVID-19 vaccine. Analyzing the above study 95.9% were aware of COVID-19 outbreak while 1.5% were not sure. And the source to learn about COVID-19 is from social media 61.5%, from friends 31.5%, health professionals 34.5% and from news studies 69%. And 91.5% people agree that COVID-19 disease is contagious while 6% were not sure or did not have any idea. 80.5% of people are aware of SARS while 7% do not know and 12.9% have no idea and do not know. 91.9% people aware that COVID is spread from bat while 1.5% says the camel, 3% says through the domestic animal. 69.7% agree with SARS spread from the bat and 9.6% with domestic animal and 15.5% say from the camel. The spread of COVID-19 67% says from air born and 81.5% agree with respiratory droplet and through personal contact. 85% of people are aware of symptoms and 9% of people are not fully aware of this. The personal and professional life of people have been affected by COVID-19 94% people says and 3% people not sure and 3% people life are not affected by COVID. 48.5% people feel less anxious or not at all while 24.2% felt nervous, anxious and 10.6% people felt depressed and 16.7% felt hopeless about the future. A total of 67.7% are closed or talk to their relative or friend every day and 21.4% talked few times a week and 6.5% talked few times a month. A total of 54.2% people agree that distance education is good and 10.9% say fair and 11.9% say poor and 16.4% say excellent. A total of 71.4% people say the treatment of COVID and SARS is vaccination while the other 21.1% goes with supportive treatment and 7.5% have no idea. A total of 80.7% of people know hydroxychloroquine and 47.9% know Remdesivir and 16.1% know about Avigan while 0.5% of people were not aware of these drugs. A total of 90.4% of people say incubation period of COVID is 10-14 days while 7.1% says 2 to 5 days and 2.5% says 5 to 10 days. A total of 84.6% people know all of the prevention of COVID-19 while 10% were not well aware. A total of 51% people say SARS and COVID-19 both of them are contagious and associated with a high mortality rate and 36.5% say only COVID-19, while 9% have no idea. A 74.5% say 60+ age group are mostly affected by COVID-19 and 39% says 0 to 19 age group, 12.5% says 20-39 and while 36.5% says 40 to 59 age group are mostly affected. 76.7% says the side effect of COVID-19 vaccine is mild fever and 40.4% says swelling and 59.1% says fatigue and 32.6% says aches while 0.5% of people were not aware of the side effect of the vaccine. A total of 67.2% people know Bharat Biotech vaccine companies, 26.2% know Serum Institute vaccine companies, 4.6% know Biological E vaccine companies and 0.5% people know almost all of them. 80.4% of people are aware of side effects of COVID-19 vaccine, 11.1% are not aware while 8.5% of people are not sure. 70.1% of people are not vaccinated yet and 17.4% of people have experienced no side effects and 12.4% have experienced the side effect of the vaccine.

The study shows how some people are unaware of the SARS and COVID-19 virus and the importance of vaccine. It was observed that it is time to be aware of the vaccine and its importance along with how to keep calm and care about

mental health as many people have been observed depressed and anxious.

Risk Factors and Severity

COVID-19 can infect anyone and produce symptoms varies from minor to severe. Some individuals may be more sensitive to it than others who experience a serious illness caused by respiratory viruses (such as influenza) because they have characteristics or medical problems that raise their risk. These are referred to as "risk factors"^[19] Age or the presence of such chronic medical disorders are two examples. When you have COVID-19, you're more likely to require hospitalization or intensive care, and you're much more likely to die from the infection.^[1]

Prevention

As there are some licenced therapies for this infection at this time, but prevention is key. Several characteristics of this virus make avoidance impossible, Specifically, nonspecific illness features, infectivity well before the initial infection during the incubation period, asymptomatic spreading, extended incubation period, and tropism on mucosal surfaces such as mucosal surfaces Conjunctivitis is a condition that affects the eyes, extended disease period and spread even after therapeutic recovery.^[2] Isolation is advised for confirmed or reported cases of moderate disease at home. To allow for virus destruction, the ventilation at home should be strong with sunshine. It is appropriate to ask patients to wear a clear surgical mask and exercise cough hygiene. When in the same room as the patient, Every 15–20 minutes, doctors should be required to put on a surgical mask and wash their hands.^[14]

CONCLUSION

There are vaccines available for the treatment of COVID-19 but also there are many drugs like chloroquine and remdesivir which show promising improvement in COVID-19. So many clinical trials of the drug is going on to improve this drug's effect it is taking time to find out the proper effect on the body so there is less side effect or adverse effect shown to human body. There are vaccines available to treat COVID-19, but several of the medications discussed above are still showing positive results in COVID-19 cases. These medications have already been used to treat SARS and MERS, all of which are linked to COVID-19. Furthermore, the treatment of these medications has several side effects. Nowadays, covaxin, covishield, and convalescent plasma therapy have shown to be very successful and fast in improving the patients' condition.

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