

**A QUESTIONNAIRE BASED STUDY TO ASSESS AWARENESS & KNOWLEDGE
REGARDING COVID-19 PANDEMIC AMONG SECOND YEAR MBBS STUDENTS****Dr. Virendra Kushwaha¹, Dr. Pooja Agrawal^{2*} and Dr. Vipul Shukla²**¹Department of Pharmacology, Government Medical College, Azamgarh, Uttar Pradesh.²Department of Pharmacology, GSVM Medical College, Kanpur, Uttar Pradesh.***Corresponding Author: Dr. Pooja Agrawal**

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ABSTRACT

Introduction: 2020 will be remembered in future for Covid19 pandemic. Covid-19 is such a big threat to humans because it can kill adults and elderly people with existing health problems. Evidence suggests that the likelihood of pandemics has increased over the past century globally. So, pandemics will be continuing in more and more intensified manner. NMC has also been included a competency regarding pandemics to Undergraduate (MBBS) students in CBME based teaching, so that M.B.B.S. students could gain efficiency about pandemics and could serve society in emergency. **Material & method:** We conducted a questionnaire based online study to assess the awareness and knowledge among second year MBBS students in Deptt. Of Pharmacology, GSVM Medical College, Kanpur during Covid-19 pandemic, the data obtained was tabulated analysed, and results calculated in percentages. **Result:** In our study most of the students (96.9%) are aware about history of pandemics. Maximum students (98.7%) are aware about clinical features and risk factors of Covid-19. More than 90% students are aware about different drugs and their mechanism of action, used in Covid-19 management. About 98% know the protocols to prevent spread and to treat Covid-19 and need of regular updating regarding recent protocols. **Conclusion:** So, second year MBBS students are updated regarding recent protocols of Covid-19 infection, so they can serve society in emergency situations.

KEYWORDS: Pandemic, Covid-19, Undergraduate (MBBS) students.**INTRODUCTION**

Pandemics are large-scale outbreaks of infectious disease that can greatly increase morbidity and mortality involving many countries resulted in severe economic, social, and political disruption.^[1]

Till now world has faced many pandemics like Black death/ Bubonic Plague, Flu pandemic, Cholera pandemic etc. 2020 will be remembered in future for Covid19 pandemic. Covid19 is caused by SARS-CoV2, an RNA virus, that have a high mutation rate. Covid-19 has started behaving a lot like the once-in-a-century pathogen and we should assume it will be until we know otherwise.

Covid-19 is such a big threat to humans because it can kill healthy adults in addition to elderly people with existing health problems. The data all around the world suggest that the virus has a case fatality risk around 1%; this rate would make it many times more severe than typical seasonal influenza, putting it somewhere between the 1957 influenza pandemic (0.6%) and the 1918 influenza pandemic (2%).^[2] Covid-19 is transmitted from one person to other very rapidly in an exponential rate of increase. An average infected person spreads the disease

to two or three others. Evidence suggest that it can be transmitted by people who are just mildly ill or even presymptomatic.^[3] The Middle East Respiratory Syndrome (MERS) or Severe Acute Respiratory Syndrome (SARS), were spread much less efficiently and only by symptomatic people, So Covid-19 is much harder to contain than others.^[4] Governments and public health agencies are taking appropriate steps to slow the virus's spread at local as well as national levels but world also needs to accelerate work on treatments and vaccines for Covid-19.^[5]

India has approved two vaccines (Covishield & Covaxin) for emergency use. India began the administration of COVID-19 vaccines on 16 January 2021. As of 23rd June 21, India has administered 29,81,08,193 doses overall, including first and second doses of the currently approved vaccines.^[6,7]

Evidence suggests that the likelihood of pandemics has increased over the past century globally because of increased travel and migration, urbanization, changes in land use, and greater exploitation of the natural environment. So, pandemics will be continuing in more and more intensified manner.^[1] So, it is important for all

of us to become aware regarding prevention and protection from such pandemics.

NMC has also been included a competency regarding pandemics to Undergraduate (MBBS) students in CBME based teaching, so that M.B.B.S. students could gain efficiency about pandemics. In this perspective we planned an online questionnaire-based study among second year MBBS students to assess their knowledge regarding Covid19 prevention & treatment protocol.

MATERIAL AND METHOD

Online study material was provided to 2nd year students regarding history of pandemics in world, measures to prevent Covid-19, pathogenesis, symptoms, treatment & complications of Covid-19. Competency regarding pandemic has also been included in new CBME based undergraduate teaching, so it is important to develop skill

to deal with pandemic is must for Undergraduate students.

A questionnaire-based study conducted among 250 students of MBBS (2nd year). Online 19 questions were provided to students in google form. Questions were about history of pandemics in world, causative agent of Covid-19, prevention, various drugs available for treatment, treatment protocol and vaccines available for Covid-19. Among 250 students only 225 were given the responses in the time provided. Responses were recorded and was analysed.

RESULTS

In our study the total number of respondent students are 225, out of which 137 are male and 88 are female (Fig. 1).

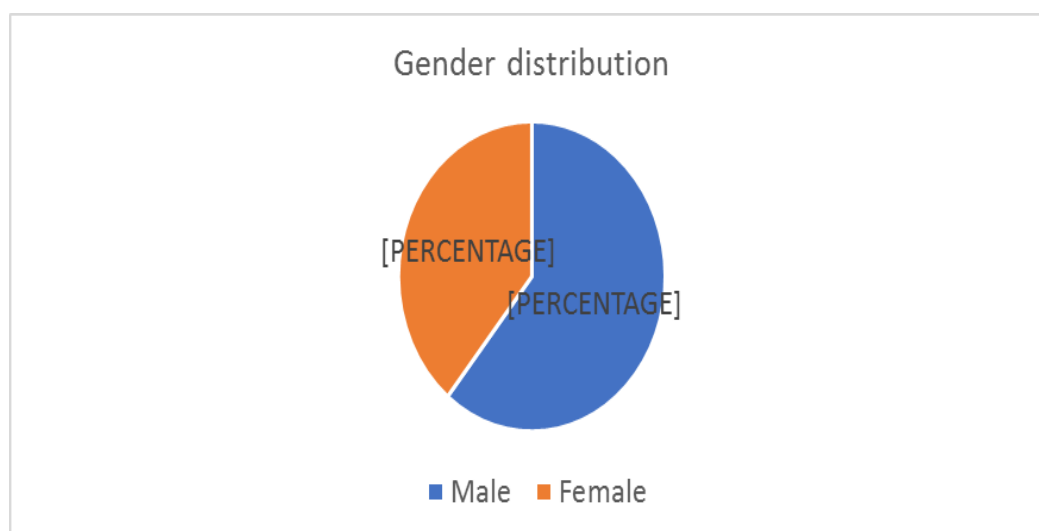


Fig 1: Out of 225 responder 137 are male and 88 are female.

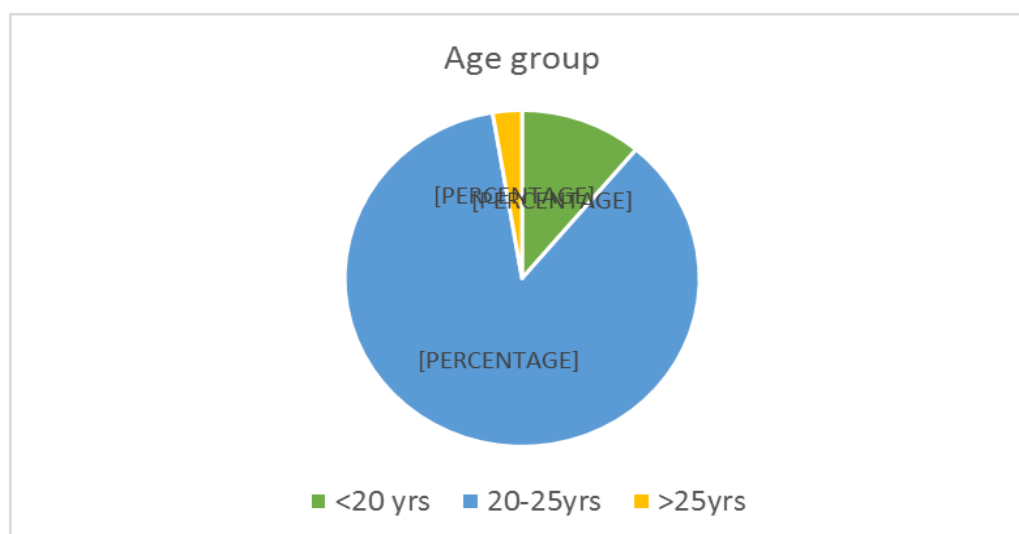


Fig 2: In our study, 25 students are less than 20 years, 194 students are between 20 - 25 years and 6 students are more than 25 years old.

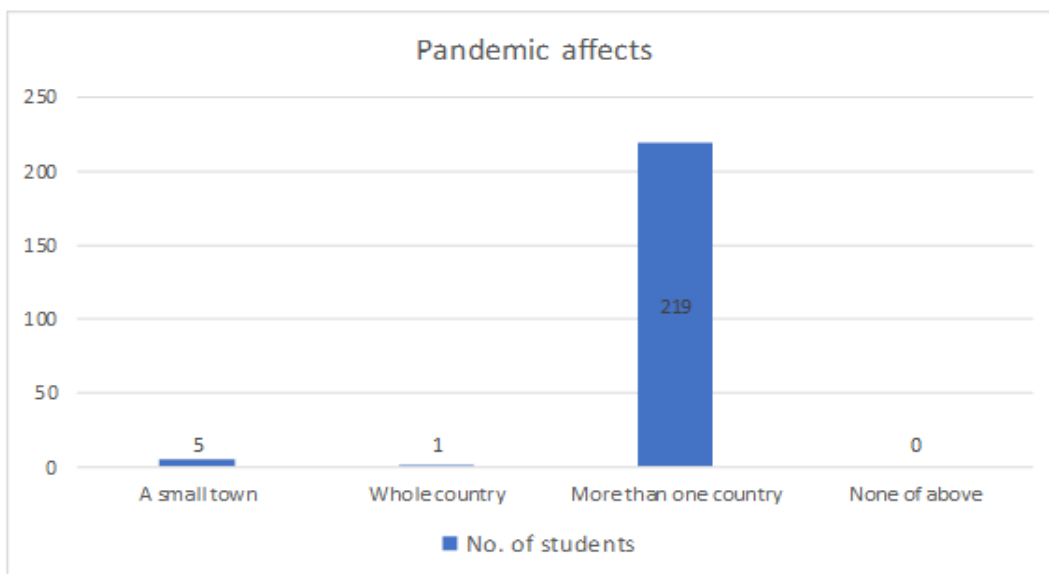


Fig 3: It was found that 219(97.3%) students are aware that pandemic affects more than one country.

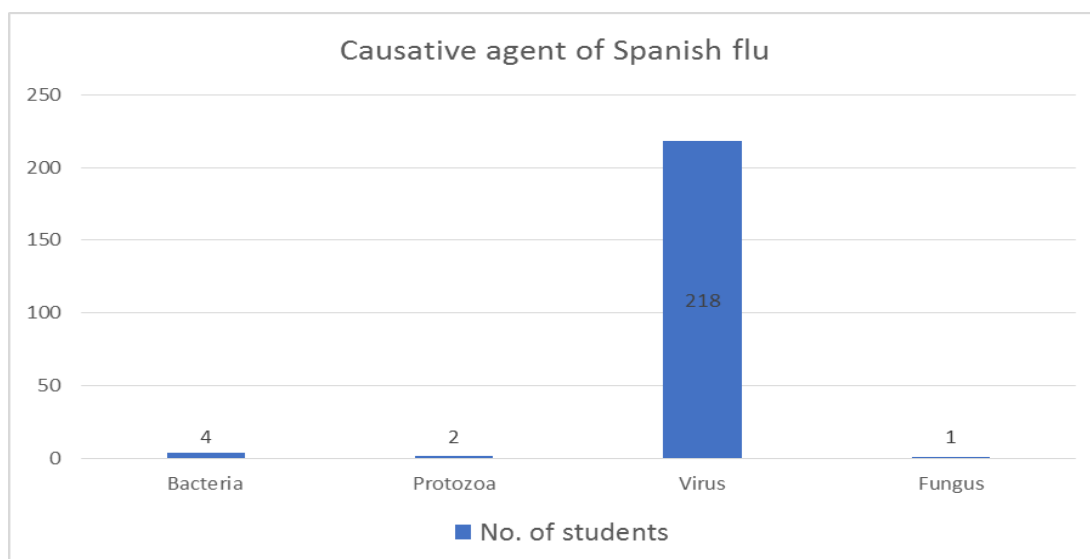


Fig 4: Most students, 218(96.9%) are aware that Spanish flu was caused by a virus.

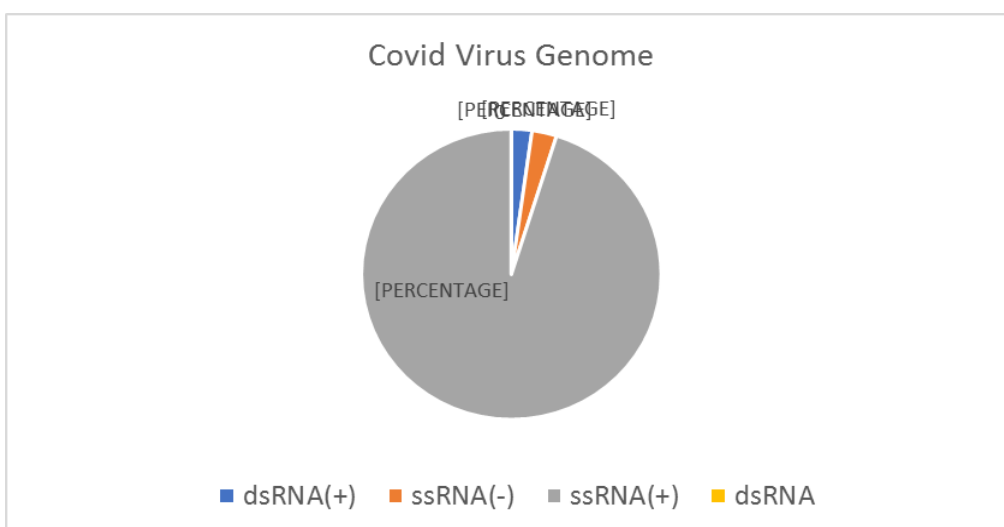


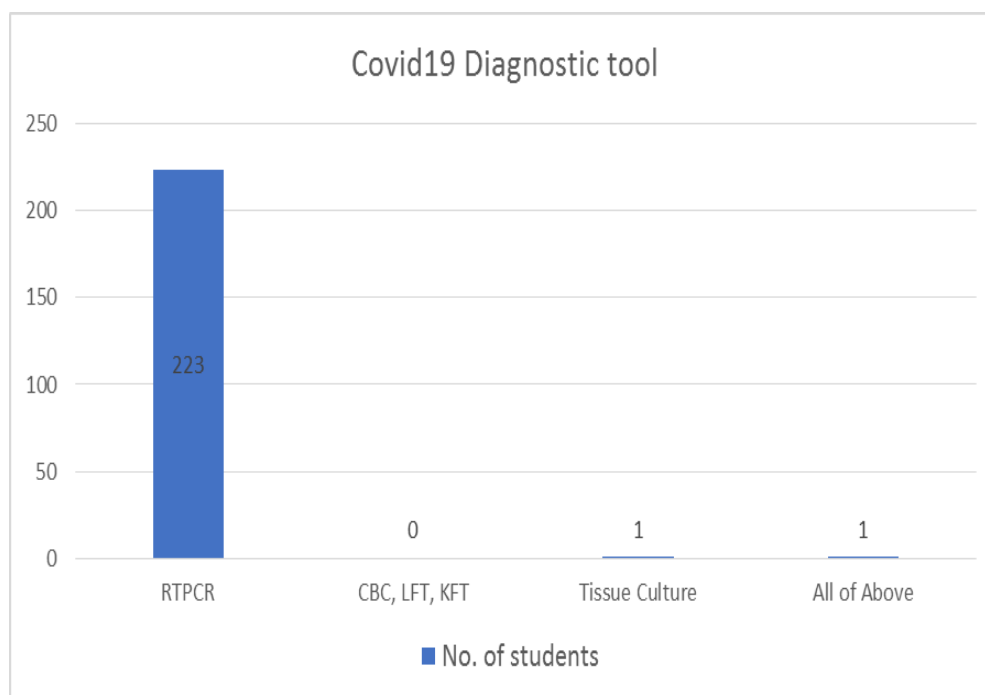
Fig 5: In our study most of the students, 214(95.1%) are aware that Human Corona virus is a positive single stranded RNA virus.

Table 1: In our study 221(98.2%) students know that Covid19 spreads through respiratory droplets.

Mode of spread of Covid19	No. of Responses/ Total response	Percentage of responses
Direct person to person contact through skin	4/225	1.8%
Person to person contact via blood donation	0/225	0%
No direct transmission from person to person	0/225	0%
Direct person to person contact through respiratory droplets	221/225	98.2%

Table 2: 222(98.7%) students out of 225 are aware about clinical feature of Covid19 while 216(96.4%) know that severe form of Covid affects Alveolar cells of lungs.

Clinical features of Covid19	No. of Responses/ Total response	Percentage of responses
Cough and cold	2/225	0.9%
Fever	1/225	0.4%
Loss of taste and smell	0/225	0%
All of above	222/225	98.7%
Severe form of Covid19 affects mainly		
Gastric glands of GIT	2/225	0.9%
Alveolar cells of lung	217/225	96.4%
Vascular endothelium	3/225	1.3%
Cardiac myocardium	3/225	1.3%

**Fig 6: Most of the students 223/225(99.1%) know that RTPCR is the gold standard for diagnosis of Covid19.****Table 3: 92.9% (209/225) students are aware about all the protocol of Covid19 management.**

The management protocol for COVID 19 include	No. of Responses/ Total response	Percent of responses
Early supportive therapy & monitoring	5/225	2.2%
Collection of specimens for Laboratory diagnosis	2/225	0.9%
Management of Respiratory Failure & ARDS	3/225	1.3%
All of Above	209/225	92.9%

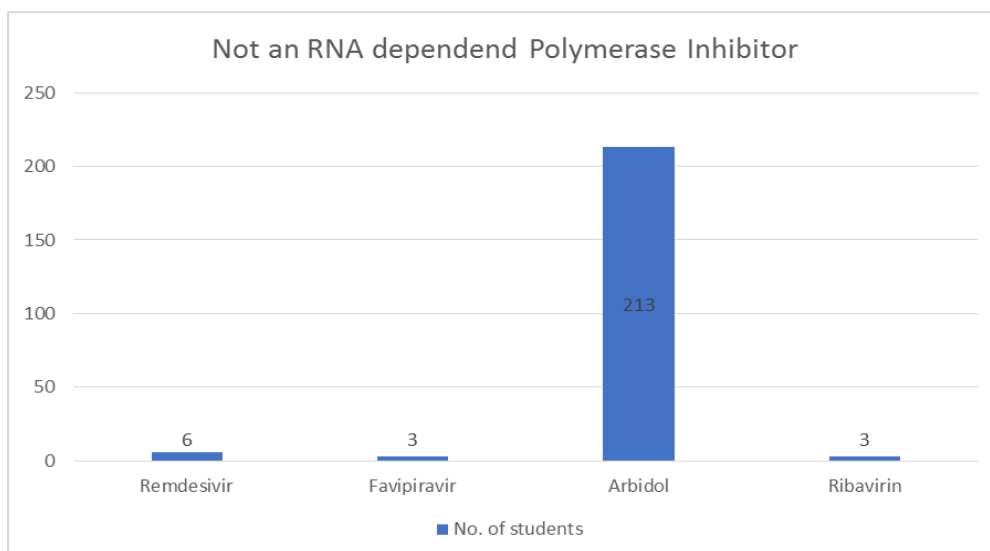


Fig 7: 213(94.7%) students know that Arbidol is not an RNA dependent RNA polymerase inhibitors.

Table 4: Maximum students, 198(88%) know that Remdesivir is not approved by FDA for Covid19 and 201(89.3%) aware that it does not inhibit entry of Covid19 virus into cell.

False statement about Remdesivir is	No. of Responses/Total response	Percent of responses
It is an adenosine analogue and inhibits the RNA dependent RNA polymerase of some viruses	8/225	3.6%
It is a prodrug	15/225	6.7%
It is given by intravenous route	4/225	1.8%
It is an FDA-approved drug for Covid19	198/225	88%
Which drug does not inhibit the entry of virus into cell		
Remdesivir	201/225	89.3%
HCQS	6/225	2.7%
Camostat	14/225	6.2%
Arbidol	4/225	1.8%

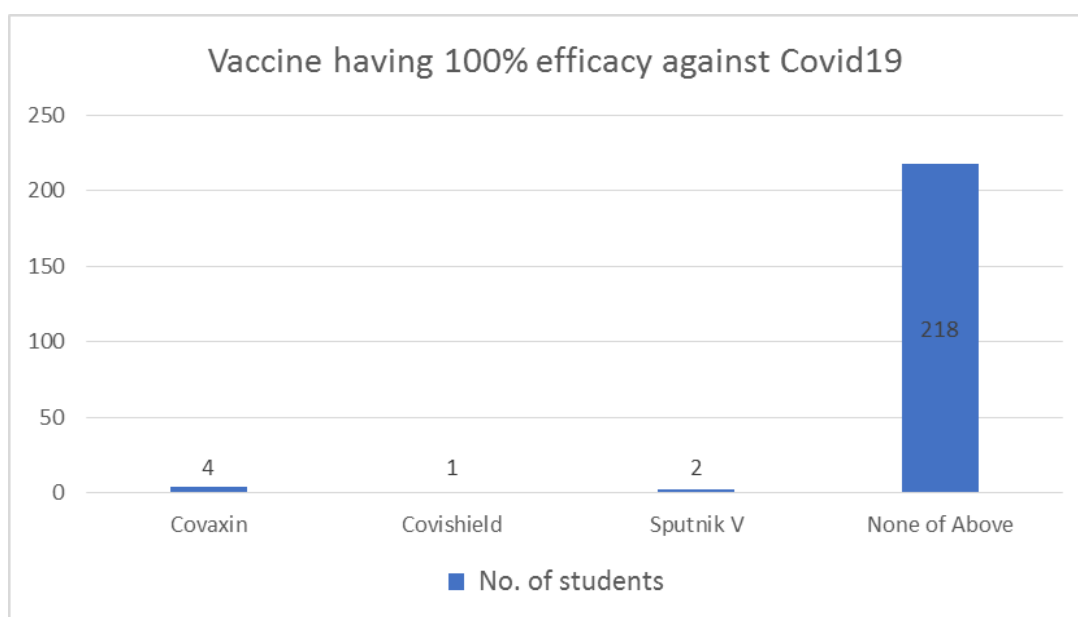


Fig 8: Maximum number of students 218 (96.9%) know that no vaccine has 100% efficacy against Covid19.

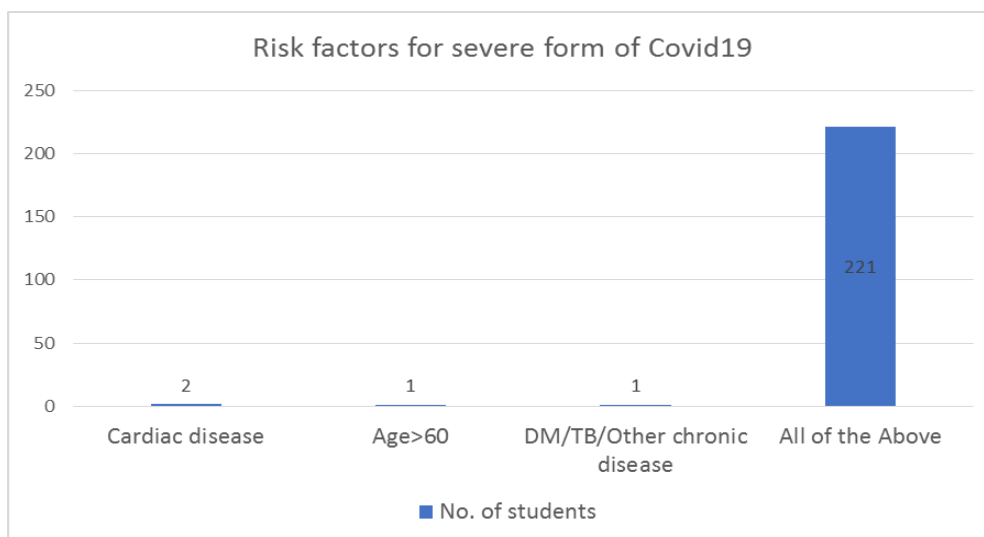


Fig 9: 98.2% (221/225) of students know the risk factors associated to develop severe form of Covid19.

Table 5: 221 (98.2%) students know the activities to prevent Covid19 in a hospital, while 216 (96%) aware about precautions to be taken to protect from Covid19.

What are the activities to prevent Covid19 infection in hospital?	No. of Responses/Total response	Percent of responses
Prevent overcrowding, conduct rapid triage, Ensure at least 1 m distance between patients	2/225	0.9%
Place ARI patients in dedicated waiting areas with adequate ventilation	0/225	0%
Follow standard precaution	2/225	0.9%
All of above	221/225	98.2%
What are the precautions that need to be taken to protect from the corona virus		
Cover your nose and mouth while sneezing	2/225	0.9%
Sanitise/ Wash your hands regularly	3/225	1.3%
Visit your doctor for treatment of URI/ Covid infection	4/225	1.8%
All of above	216/225	96%

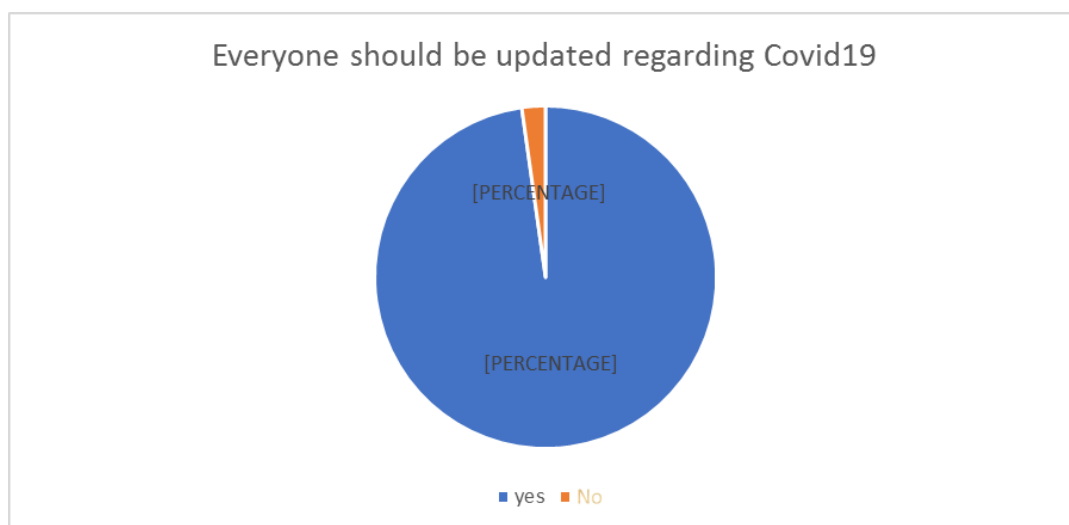


Fig 10: Maximum number of students, 221 (98%) believe that they should be updated according to recent protocols for prevention and treatment of Covid-19.

DISCUSSION

Government has been running various programmes to enhance awareness regarding prevention & protection from Covid-19. So, awareness about Covid-19 is good among MBBS students and general public as well. In a study conducted by Ashish kumar et al^[8] conducted among general public, reported that 82% of public is aware about Covid-19, while our study revealed that 97% of second year students are aware about it which means that MBBS students have better knowledge about Covid-19. According to the study by Ashish kumar et al⁸ 98% of general public aware about person to person spread of Covid-19 which is in accordance to our study (98% of students are aware of mode of transmission, causative agent). According to study by Ashish kumar et al^[8], symptoms of Covid-19 are fever (98%), cough & sore throat (87%) while in our study 98% of students are aware of common symptoms. In our study 98% of students are aware of comorbid conditions to develop severe form of Covid-19 while study by Ashish kumar et al⁸ reported that only 60% are aware that diabetics can develop severe form of disease. So, overall, second year students have better knowledge about causative agent/ mode of transmission/treatment and preventive measures of Covid-19. Our study revealed that most of the students know the various drugs and their mechanism of action as well, used in treatment of Covid-19 (94% of students are aware about mechanism of action of Remdesivir and 96% students know that no drug has 100% efficacy against Covid-19). Our study revealed that 98% of students agreed that they should be updated regarding recent Covid-19 treatment guidelines through reliable sources.

CONCLUSION

In our study second year medical students are aware of type of virus causing Covid-19 infection, prevention & treatment protocol, high risk patients and need of regular updated knowledge regarding Covid-19. NMC has released a guideline for final year students to do duty in Covid ward during pandemic, so in emergency situation during pandemic they can serve the society.

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