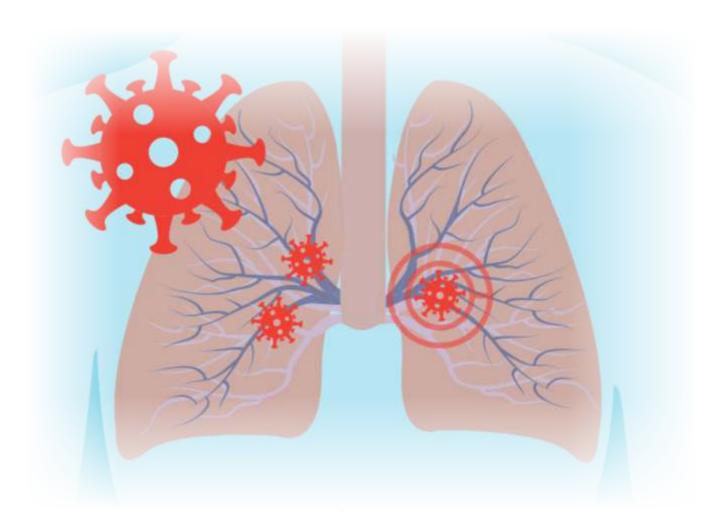
# Medi-Update

**ISSUE: 12 | OCTOBER 2020** 





## PARUL SEVASHRAM HOSPITAL

PARUL INSTITUTE OF MEDICAL SCIENCES & RESEARCH

#### Global status and data

Coronavirus disease 2019 (COVID-19) is an infectious disease caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). It was first identified in December 2019 in Wuhan, Hubei, China, and has resulted in an ongoing pandemic. The World Health Organization (WHO) declared the COVID-19 outbreak a Public Health Emergency of International Concern (PHEIC) on 30 January 2020 and a pandemic on 11 March 2020.



As of 1 October 2020, more than 33.9 million cases have been reported across 188 countries and territories with more than 1.01 million deaths; more than 23.6 million people have recovered. Local transmission of the disease has occurred in most countries across all six WHO regions.

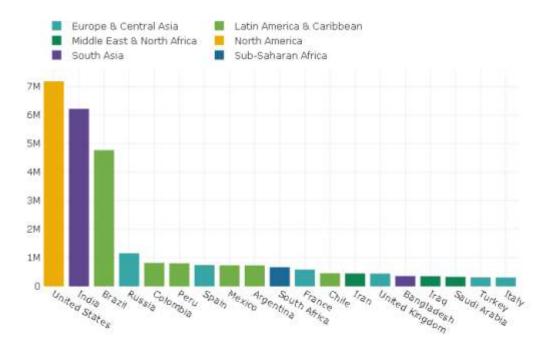
#### Status in India

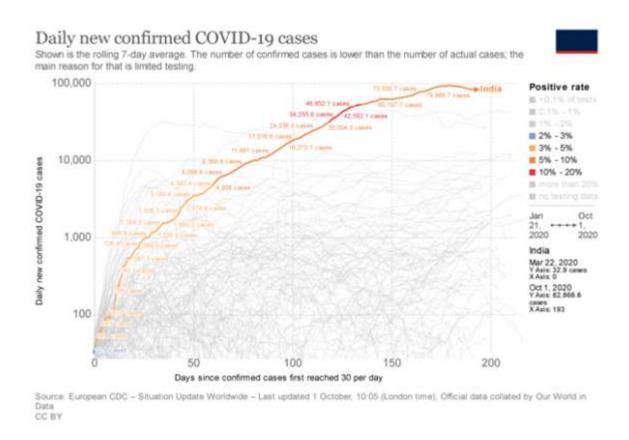
As on 1st October 2020, total no. Of confirmed cases are 63,12,512. Out of this total positive cases are 9,40,408 and recovered cases are 52,72,480. Total deaths due to COVID-19 as of now stand at 98,716. Overall mortality rate in India is 1.56% and Discharge rate is 83.53%.

#### Status in Gujarat

Total cases in Gujarat till date are 1,37,394 and total active cases at 16,610. Total recovered cases are at 1,17,331. Total deaths in the state have been 3453. Death rate in Gujarat is at 2.5% and the discharge rate is 85.33%.

#### The Current global data on COVID-19 comparing cases in different cases is as below:

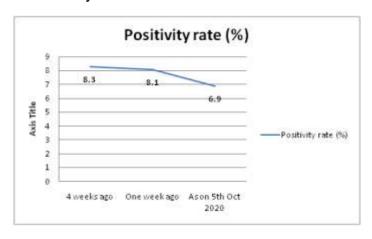




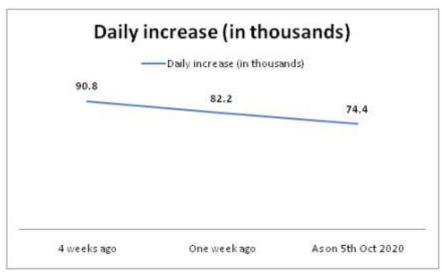
India now accounts for 12.24% of all active cases globally (one in every 8 active cases) and 9.63% of all deaths (one in every 10 death). India's doubling time for total cases stands at 53.3 days and for deaths it is at 57 days.

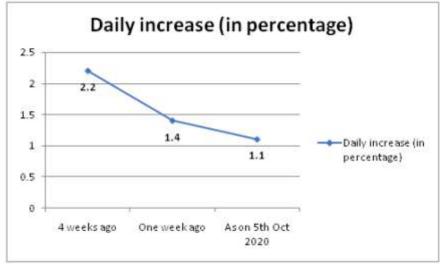
ICMR second sero survey shows overall 6.6% of positivity rate in the country iving around 12 crore cumulative cases.

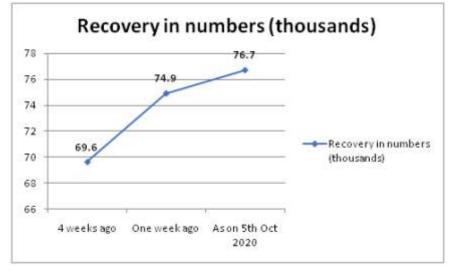
#### Trend analysis of COVID-19 indicators:











#### IMPACT OF COVID 19 ON PATIENTS OF NON COMMUNICABLE DISEASES

The COVID-19 lockdown period saw closure of routine OPDs at premier Government and Private hospitals all over India in a trend which was seen all over the world. This has had a severe negative impact on treatment of Non communicable diseases .A WHO survey released in Geneva in August 2020 based on a survey of 155 countries confirmed that," Many people who need treatment for diseases like cancer, cardiovascular disease and diabetes have not been receiving the health services and medicines they need since the COVID-19 pandemic began. It's vital that countries find innovative ways to ensure that essential services for NCDs continue, even as they fight COVID-19."

#### Widespread service disruptions:

Statistics in WHO survey reveal that more than half (53%) of the countries surveyed have partially or completely disrupted services for hypertension treatment; 49% for treatment for diabetes and diabetes-related complications; 42% for cancer treatment, and 31% for cardiovascular emergencies. Rehabilitation services have been disrupted in almost two-thirds (63%) of countries, even though rehabilitation is key to a healthy recovery following severe illness from COVID-19.

#### Reassignment of staff and postponing of screening

In the majority (94%) of countries responding, ministry of health staff working in the area of NCDs were partially or fully reassigned to support COVID-19. The postponement of public screening programmes (for example for breast and cervical cancer) was also widespread, reported by more than 50% of countries. This was consistent with initial WHO recommendations to minimize non-urgent facility-based care whilst tackling the pandemic.

But the most common reasons for discontinuing or reducing services were cancellations of planned treatments, a decrease in public transport available and a lack of staff because health workers had been reassigned to support COVID19 services. In one in five countries (20%) reporting disruptions, one of the main reasons for discontinuing services was a shortage of medicines, diagnostics and other technologies.

#### Inclusion of NCD services in COVID 19 Plan

Globally, two-thirds of countries reported that they had included NCD services in their national COVID-19 preparedness and response plans; 72% of high-income countries reported inclusion compared to 42% of low-income countries. Services to address cardiovascular disease, cancer, diabetes and chronic respiratory disease were the most frequently included. Dental services, rehabilitation and tobacco cessation activities were not as widely included in response plans according to country reports.

#### Alternative strategies for continuing care being implemented

Encouraging findings of the survey were that alternative strategies have been established in most countries to support the people at highest risk to continue receiving treatment for NCDs. Among the countries reporting service disruptions, globally 58% of countries are now using telemedicine (advice by telephone or

online means) to replace in-person consultations; in low-income countries this figure is 42%. Triaging to determine priorities has also been widely used, in two-thirds of countries reporting.

## FACTORS CAUSING COVID-19 DELETERIOUS IMPACT ON TREATMENT OF NON COMMUNICABLE DISEASES ANOTHER ASPECT: COVID-19 and NCD intersection



The pandemic has exposed the link between NCDs and COVID-19. Various studies have revealed that there was at least one individual from the pool of critically ill patients from Wuhan (48 percent), New York City (71.9 percent) and Italy (98.9 percent). Furthermore, hypertension, cardiovascular disease and diabetes were the most predominant NCDs in patients with COVID-19. This should be an area of concern, especially when reports show that, worldwide, that there may be around 425 million undiagnosed cases of type 2 diabetes and over 1 billion patients living with uncontrolled hypertension. Mundane infections such as sore throat, sinusitis and the common cold are a part of our day-to-day life; however, while these may be no concern for a non-diabetic individual, a person with diabetes may have a hard time when getting treated.

A study of COVID-19 fatalities in Italy found that 98.8% of deceased patients had at least one comorbidity, and 48.6% had at least three comorbidities. The most common comorbidities are outlined in Table 1, with hypertension being the most prevalent (73.8%).

#### POST LOCKDOWN IMPROVEMENT IN SITUATION OF NCD PATIENTS

Table 1. Most common comorbidities observed in COVID-19 positive deceased patients

Diseases	N	%
schemic heart disease	145	30.1
Atrial Fibrillation	106	22.0
Stroke .	54	11.2
Hypertension	355	73.8
Diabetes	163	33.9
Dementia	57	11.9
COPD	66	13.7
Active concer in the post 5 years	94	19.5
Chronic liver disease	18	3.7
Chronic renal failure	97	20.2
Number of comorbidities		
O comorbidities	6	1.2
1 comorbidity	113	23.5
2 comorbidities	128	26.6
3 comorbidities and over	234	48.6

including our own saw a peak of COVID 19 which enabled reopening of routine OPDs at previously designated COVID hospitals accompanied by Telemedicine and opening of public transport have definitely made life of COVID patients a lot easier and have lessened the impact of COVID on patients with NCD's.

The post lock down period in most countries

Reference: Instituto Superiore di Sanita, COVID-19 surveillance group, March 2020

## **FUTURE OF COVID-19**

Epidemiologists are constructing short- and long-term projections as a way to prepare for, and potentially mitigate, the spread and impact of SARS-CoV-2, the virus that causes COVID-19. Although their forecasts and timelines vary, modellers agree on two things: COVID-19 is here to stay, and the future depends on a lot of unknowns, including whether people develop lasting immunity to the virus, whether seasonality affects its spread, and — perhaps most importantly — the choices made by governments and individuals. The future will depend a lot on how social mixing resumes and how the prevention is carried out. This is as stated by Joseph Wu, a disease modeller at the University of Hong Kong.

Lockdowns are easing in many countries, leading some people to assume that the pandemic is ending, says Yonatan Grad, an epidemiologist at the Harvard T. H. Chan School of Public Health in Boston, Massachusetts. "But that's not the case. We're in for a long haul." If immunity to the virus lasts less than a year, for example, similar to other human coronaviruses in circulation, there could be annual surges in COVID-19 infections through to 2025 and beyond.

The pandemic is not playing out in the same way from place to place. Countries such as China, New Zealand and Rwanda have reached a low level of cases — after lockdowns of varying lengths — and are easing restrictions while watching for flare-ups. Elsewhere, such as in the United States and Brazil, cases are rising fast after governments lifted lockdowns quickly or never activated them nationwide.

But there is hopeful news as lockdowns ease. Early evidence suggests that personal behavioural changes, such as hand-washing and wearing masks, are persisting beyond strict lockdown, helping to stem the tide of infections. In a June report, a team at the MRC Centre for Global Infectious Disease Analysis at Imperial College London found that among 53 countries beginning to open up, there hasn't been as large a surge in infections as predicted on the basis of earlier data. "It's undervalued how much people's behaviour has changed in terms of masks, hand washing and social distancing. It's nothing like it used to be," says Samir Bhatt, an infectious-disease epidemiologist at Imperial College London and a co-author of the study. It was further seen that if 50-65% of people are cautious in public, then stepping down social-distancing measures every 80 days could help to prevent further infection peaks over the next two years.

In regions where COVID-19 seems to be on the decline, researchers say that the best approach is careful surveillance by testing and isolating new cases and tracing their contacts. This is the situation in Hong Kong, for instance. "We are experimenting, making observations and adjusting slowly," says Wu. He expects that the strategy will prevent a huge resurgence of infections — unless increased air traffic brings a substantial number of imported cases.

An analysis by the Centre for the Mathematical Modelling of Infectious Diseases COVID-19 Working Group concluded that contact tracing must be rapid and extensive — tracing 80% of contacts within a few days — to control an outbreak. What will happen when it gets cold?

It is clear now that summer does not uniformly stop the virus, but warm weather might make it easier to contain in temperate regions. In areas that will get colder in the second half of 2020, experts think there is likely to be an increase in transmission. Many human respiratory viruses — influenza, other human

## **FUTURE OF COVID-19**

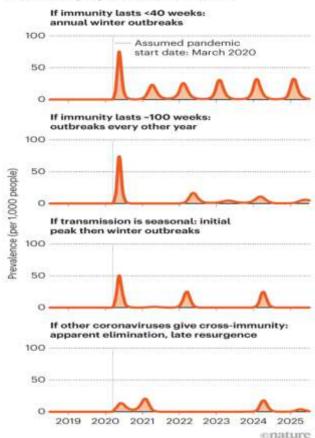
coronaviruses and respiratory syncytial virus (RSV) — follow seasonal oscillations that lead to winter outbreaks, so it is likely that SARS-CoV-2 will follow suit.

"I expect SARS-CoV-2 infection rate, and also potentially disease outcome, to be worse in the winter," says Akiko Iwasaki, an immunobiologist at the Yale School of Medicine in New Haven, Connecticut. Evidence suggests that dry winter air improves the stability and transmission of respiratory viruses, and respiratory-tract immune defence might be impaired by inhaling dry air, she adds.

In future, SARS-CoV-2 outbreaks could arrive in waves every winter. The risk to adults who have already had COVID-19 could be reduced, as with flu, but it would depend on how rapidly immunity to this coronavirus wears off, says Neher. What's more, the combination of COVID-19 and flu in autumn and winter could be challenging, says Velasco-Hernández, who is setting up a model of how such viruses might interact. To end the pandemic, the virus must either be eliminated worldwide — which most scientists agree is near-impossible because of how widespread it has become — or people must build up sufficient immunity through infections or a vaccine. It is estimated that 55–80% of a population must be immune for this to happen, depending on the country.

#### WHAT HAPPENS NEXT?

To predict how COVID-19 might come and go in temperate regions such as North America and Europe, researchers have modelled the influence of factors including how long immunity to the coronavirus might last, the role of seasons and whether other coronavirus infections might give some immunity to it.



#### What happens in 2021 and beyond?

The pandemic's course next year will depend greatly on the arrival of a vaccine, and on how long the immune system stays protective after vaccination or recovery from infection. Many vaccines provide protection for decades — such as those against measles or polio — whereas others, including whooping cough and influenza, wear off over time. Likewise, some viral infections prompt lasting immunity, others a more transient response. "The total incidence of SARS-CoV-2 through 2025 will depend crucially on this duration of immunity," wrote Grad, Harvard epidemiologist Marc Lipsitch and colleagues.

## WHATS UP WITH MEDICAL FIELD

## Vaccines for COVID 19 – A current update

The world is in the midst of a COVID-19 pandemic. As WHO and partners work together on the response – tracking the pandemic, advising on critical interventions, distributing vital medical supplies to those in need--they are racing to find a vaccine.

Vaccines save millions of lives each year. Vaccines work by training and preparing the body's natural defences --- the immune system--- to recognize and fight off the viruses and bacteria they target. If the body is exposed to those disease-causing germs later, the body is immediately ready to destroy them, preventing illness. There are now vaccines to prevent more than 20 life-threatening diseases, and work is ongoing at unprecedented speed to also make COVID-19 a vaccine-preventable disease.

There are currently more than 100 COVID-19 vaccine candidates under development, with a number of these in the human trial phase. WHO is working in collaboration with scientists, business, and global health organizations through the ACT Accelerator to speed up the pandemic response. When a safe and effective vaccine is found, COVAX (led by WHO, GAVI and CEPI) will facilitate the equitable access and distribution of these vaccines to protect people in all countries. People most at risk will be prioritized.

This is the list of the candidate vaccines which are in clinical evaluation (Phase 3). There are many other candidate vaccines which are in preclinical evaluation.

#### **INDIAN Scenario**

As per Government there are at least 30 covid 19 vaccine candidates under development in INDIA.

Phase 1 trials of Bharat Biotech and Cadilla Health care vaccines have shown positive results.

**Bharat Biotech:** An inactivated whole virion candidate vaccine for SARS-CoV-2 has been developed by Bharat Biotech International Ltd, using the virus isolate (NIV-2020-770) provided by ICMR-National Institute of Virology. Safety and tolerability studies in small animals like rats, mice and rabbits have been done.

## WHATS UP WITH MEDICAL FIELD

#### Results:

**Phase 1** clinical trials along with parallel studies in hamsters and rhesus macaques have been completed. The trial has revealed excellent safety of the candidate vaccine. Immunogenicity testing is in progress, the statement said.

Phase 2 clinical trials are going on.

#### Cadilla Healthcare:

A DNA vaccine has been developed. Pre-clinical toxicity studies were conducted in mice, rats, rabbits and guinea pigs. "The vaccine has been found to be safe and immunogenic," the statement said.

#### Results:

**Phase 1** clinical trials have been completed. The trial has revealed excellent safety of the candidate vaccine. Immunogenicity testing

is in progress.

Phase 2 clinical trials are ongoing on.

#### Serum Institute of India

SII and ICMR have partnered for the clinical development of two global vaccines.Oxford vaccine is undergoing phase 3 clinical trials in Brazil. Phase 2 and 3 bridging studies have been initiated by ICMR at 14 clinical trial sites. ICMR and SII have partnered for the clinical development of a "glycoprotein sub-unit nanoparticle adjuvanted vaccine", developed by Novavax from the USA. The trial will be initiated in the second half of October after the vaccine is manufactured by SII.

The Covid-19 vaccines closest to the finish line are designed to be injected into the arm. Researchers are looking at whether they can get better protection from inoculations that fight the virus at its point of attack the nose and mouth. Most vaccines in human testing require two shots for effectiveness, and developers still aren't even sure if they'll prevent infections. Scientists are hoping to generate superior immune responses with inhaled vaccines that directly target the airway cells the virus invades.

An alternative to conventional methods, sprayed and inhaled immunizations under development in the U.S., Britain and Hong Kong could play an important role in helping society escape restrictions that have upended economies and everyday life. Among their goals is to prevent the pathogen from growing in the nose, a point from which it can spread to the rest of the body, and to other people.

## Case-1

Large CBD ( Common bile duct ) stone and lower CBD stricture successfully managed by ERCP (Endoscopic Retrograde Cholangio-Pancreatography) procedure at Parul Sevashram Hospital.

#### Why so difficult: Big Stone, Located in a region where endoscopic approach is difficult

A middle aged male presented with upper abdominal pain along with signs of Obstructive Jaundice at Parul Sevashram Hospital.

On imaging, MR Cholangiopancreaticography was suggestive of Lower CBD stricture with Large CBD stone above it. ERCP procedure was planned for the patient. The position of stone was very difficult to approach and size was also very big. It was difficult to crush even by Trapezoid Lithotripter

Stricture Dilatation and Sphincteroplasty was done using CRE balloon. And finally the Large Stone was removed by using stone retrieval Balloon. Patient did well postoperatively and was discharged the very next day..

Treating doctor: Dr Dhaval Dave, Gastroenterologist.





### Case-2

Patient suffering from Renal Cell Carcinoma treated successfully at Parul Sevashram Hospital.

Big renal malignant mass removed laparoscopically with minimal blood loss and minimising patient recovery time and post operative discomfort.

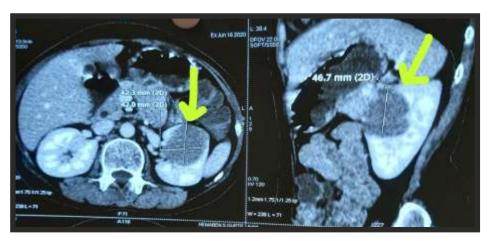
A 53 year old female patient with history of abdominal pain was referred to the Oncosurgery OPD with a CT scan showing  $5 \times 5 \times 5$  cm sized, exophytic mass lesion in the left kidney suggestive of papillary renal cell carcinoma.

After establishing and timely confirming the diagnosis, left sided Laparoscopic Radical Nephrectomy was performed successfully and uneventfully under Maa Yojana without any expense in good duration of time.

Patient did well in the post operative period and was discharged on 3rd postoperative day.

**Operating Surgeon :** Dr Dipayan Nandy (Oncosurgeon) assisted by Dr Shall Shah (Senior Resident, General Surgery Department.

Anaesthetists: Dr Chinar Patel, Dr Pankaj Parmar, Dr Krupa Patel.





## Case-3

#### **Total Elbow Replacement**

#### A rare procedure requiring skill to give good results

A 63 year old lady presented at Department of Orthopaedics, Parul Sevashram Hospital with multifragmentary, multiplanar complex unstable distal humerus fracture of elbow after domestic fall. As the bone was osteoporotic and fracture was non-reconstructable, total elbow replacement (TER) was performed. The modified technique included the preservation of the radial head. The patient had significant pain relief and functional elbow range of motion by 2 weeks after the operation.

**Operating surgeons:** Dr Karthik Vishwanathan, Dr Setul Shah, Dr Ketas Mahajan

Anaesthetists: Dr Hetal Parikh, Dr Chinar Patel, Dr Pankaj Parmar







## Case-4

High Risk Coronary Artery Bypass Grafting in COPD patient (post Tuberculosis)

#### High risk patient with multiple co-morbidities requiring CABG

A male patient aged 65 years with a history of bilateral Chronic Obstructive Pulmonary Disease (COPD) and chronic smoking was admitted in Department of Cardiovascular and Thoracic Surgery, ParulSevashram Hospital. With history of Tuberculosis, the CT scan was suggestive of right upper lobe brocnchiectatic destruction. Angiography revealed Coronary artery disease. Patient was not able to walk for even a minute due to breathlessness and had very low pulmonary reserve. He was medically stabilised and optimised with prompt management by the team of doctors. After optimisation, CABG was conducted & patient was discharged on 6th day with uneventful course. Patient is on regular follow up and is doing well.

#### Department of CVTS:

Cardiothoracic & Vascular Surgeon : Dr. Parth Bharat Solanki

Cardiac Anesthetist: Dr. Hitendra Kanzaria









### Case-5

#### BEGER'S PROCEDURE WITH HEPATICOJEJUNOSTOMY AND CHOLEDOCHODUODENOSTOMY

A 40 year male admitted at Parul Sevashram Hospital was diagnosed with Chronic Calcific Pancreatitis with bile duct obstruction

was performed. The Operative time was 5 hours with minimal blood loss.

Post operative stay was uneventful and patient was discharged successfully after 7 days.

**Operating Surgeons:** Dr. Nitin Patel, Dr. Chirag Sangada

**Anaesthetists:** Dr. Mukesh Shukla, Dr. Ashish Jain

A rare procedure resulting in creation of non anatomic pathway for bile duct drainage. The outcome depends on skill of surgeon and perioperative management.







### Case-6

Rare Case Of Medical Reversal Of Emphysematous Pyelonephritis (EPN)

#### A case demanding multi-disciplinary approach with strong ICU backup

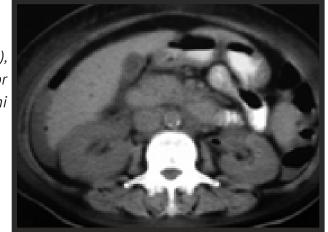
Emphysematous pyelonephritis (EPN) is a rare but potentially life-threatening necrotizing renal parenchymal infection characterized by the production of intra-parenchymal gas. The disease previously required nephrectomy however modern day advances have reduced the surgery to a minimally invasive nephron sparing version. Even with the advances the mortality rate hovers around 20-25% and conservative approaches have a higher mortality rate.

The patient a 55 year old female was a known case of uncontrolled diabetes mellitus and hypertension admitted with chief complaints of nausea, vomiting, abdominal pain, decrease urine output, mild pedal oedema and burning micturition since 4-5 days. On examinationshewas conscious and oriented and was hemodynamically stable on admission with no abnormal physical findings on systematic examination. Investigations done included CT KUB suggestive of Right Renal EPN with emphysematous cystitits (6/11/2019), repeat CT KUB on 21/11/2019 s/o Right side pyelonephritis without any gas. Serum Creatinine initially increased from 4.2 to 8 mg/dl and then came back to 2.2mg/dl on discharge day.

Initially she was managed with empirical broad spectrum antibiotics but after few days she developed pneumonia and gradually started deteriorating and bilateral D/J stent was placed. After few days on intensive multidisciplinary management in ICU she started recovering. Her renal functions and sepsis were improving.. CT KUB was repeated and it showed disappearance of all collected gas and DJ stent was also removed indeed a rare event in the history of medical science of a patient who recovered completely to only conservative treatment and did not require nephrectomy. After hospital stay of around 30 days she

was discharged eventless and advised follow up every month

**Treating Doctor :** Dr. Mehul Marwadi (Associate Prof.), Dr. R. K. Chavda (Prof & Unit Head), Dr. Dhruv Shah (Senior Resident), Dr. Hardik Gajera (Nephrologist) & Dr. Amit Doshi (Urosurgeon), Dr. Misbah Rangwala (intensivist)



# CURRICULUM IMPLEMENTATION SUPPORT TRAINING PROGRAMME (CISP- II) AT PARUL INSTITUTE OF MEDICAL SCIENCES

A 2 day training programme for training the faculty in implementing the new curriculum under the aegis of NHL Municipal Medical College the MCI nodal centre. The workshop included didactic lectures and interactive sessions to train 30 faculty members in the new curriculum.

The new competency based curriculum which laid emphasis on attitudes and communication, skill training and integrated teaching among other things was announced by MCI after 21 years in line with International advances in medical education. The new curriculum implementation needed training of faculty members so as to ensure faithful implementation of the programme.

The faculties were trained under supervision of NHL medical college faculty and inhouse faculty including Dr. Mohan Bansal Prof & HOD ENT, Dr. Uma S Nayak Prof & HOD Paediatrics, Dr. Krunal Shah Prof Microbiology, Dr. Jaba Rajguru Prof Anatomy, Dr Shashwat Nagar Assoc Prof Community Medicine, Dr. Nisarg Savjivani Assoc Prof Pathology, Dr. Soeb Jankhwala, Assoc Microbiology, Dr. Swati Mahajan, Asst Prof Physiology. The feedback of trainee faculty members was quite positive and supportive and requested similar programmes to be held in future.



#### LIST OF WEBINARS BY FACULTY MEDICINE, PARUL UNIVERSITY

Parul institute of medical sciences in keeping with its vision and mission kept up with its initiative of holding online continuing medical education programmes through Webinars.

These webinars ensured students keep upgrading their knowledge with multiple interesting online webinars in different departments. Reputed faculty were invited to deliver sessions during these webinars. The feedback from faculty members was quite positive for these webinars and most departments held such webinars with active participation of faculty.

Sr. No.	Title of Webinar	Organizing Department	Date of Webinar
1	Tobacco induced Potentially malignant oral lesions	Dept of Dentistry	29-09-2020
2	Hypertension, complications and treatment	Dept of Medicine	25-09-2020
3	Medical Devices, opportunities and Challenges	Parul University	25-09-2020
4	ENT manifestations and Management of COVID-19	Dept of ENT	18-09-2020
5	Early childhood Development & Immunization services of Children during COVID-19	Dept of Public Health	26-09-2020

#### ACADEMIC RESOURCE MANAGEMENT SYSTEM – ARMS

An online portal has been developed under Parul Institute of Medical Sciences and Research for easy accessibility of online resources to the students of MBBS wherein different types of academic material is made available online. This includes powerpoint presentations used by faculties during lectures, guidelines and latest updates related to various subjects of medical sciences, images of clinical and practical significance and videos of various practical classes, online lectures etc. The main USP of the portal is the easy availability of such academic material anytime and anywhere without carrying voluminous books at home or

while travelling. This portal also helps the students to stay updated by attending latest webinars in the various subjects. Question papers of various subjects of the University examinations conducted in Parul University and other Universities are also available in the system. Curriculum of different subjects of MBBS has been uploaded for easy access to the students.



#### Academic e-Course on Basics of COVID-19'



This course on 'Basics of COVID-19' is designed for all the healthcare workers/students associated with patient care.

#### Entire course is consist of 5 Modules -

Module 1: Introduction an approach to a case

Module 2: Laboratory diagnosis of Covid-19 infection

Module 3: Management of Covid-19

Module 4: Infection Prevention and Control Measures

Module 5: Epidemiology and preparedness for Covid-19

The course intends to build the capacity of healthcare workforce thereby facilitating better management of public health emergency like COVID-19.

#### This e-Course aims to achieve following objectives:

- Supporting community surveillance process (Early identification and reporting measures) & strengthening community linkage with public health services on preparedness, prevention, and control (home quarantine, home care) including community support systems
- To provide information on COVID-19 case approach from the clinical point of view
- To provide information on the use of laboratory diagnosis for COVID-19
- Protection of health care workers from acquiring COVID-19.
- To create awareness related to Infection Prevention & Control (IPC) measures
- To initiate a dialogue on present and future preparedness for COVID-19 and similar infectious disease pandemics

COVID-19 module has been uploaded on Parul University Digital Learning Portal and 2183 participants have been enrolled for the course till now.



### **Quality Council of India - Award**

Chief Operating Officer (COO) of Parul Sevashram Hospital Ms. Ekta Modi was awarded by Quality & Accreditation Institute India in recognition of her efforts to make PSH a safe place for health workers in COVID-19 times.

### COVID 19 antigen testing facility started at PSH

The Rapid Antigen Detection Test (RADT) for COVID-19 is a rapid point-of-care nasopharyngeal swab test that directly detects the presence or absence of coronavirus antigen in the patient's body, generating diagnosis results within 30 minutes.

RT-PCR, though highly accurate, requires complex bio safety compliant set ups and takes longer to give a result. We are thus seeing longer turnaround times as the number of cases rise. The antigen testing solves this problem to an extent as apart from being fast, it is highly specific and thus positive results are highly accurate. We have started Antigen Detection Test w.e.f. 06/08/2020 after approval. And till date 1350 patients tested for the same.

#### PSH AT FOREFRONT OF COVID-19 RESPONSE



Parul Sevashram Hospital excels as a holistic care and cure provider for COVID 19. From May 2020, more than 2000 COVID positive patients have been treated. The hospital has dedicated COVID Isolation ward and ICU offering the care as per the need of patient.

Understanding that this pandemic requires emotional and mental support along with the medications, hospital has developed a unique Holistic Care and Cure approach to meet patient's needs.

Regular patient counselling is supplemented with variety of activities for patient engagement. Our Social workers are meeting patient daily to understand their experience, to celebrate their special days in COVID ward and to make them feel like HOME. Music & game sessions are planned in isolation ward which gives a connect to all the admitted patients.

Patients are guided with breathing exercises & meditation by our expert physiotherapists as a part of this holistic care. Apart from this patient are provided with Ayush Kits to help boosting their immunity. Daily Routine starts with a hot "Kadha" with special immunity boosting ingredients followed by a healthy diet planned by dietitian; taking care of patient medical condition.

Post Covid rehabilitation facilities are also offered by the physiotherapy Department of Parul Sevashram Hospital.

The expert and dedicated team of doctor and paramedics have been able to ensure a very satisfying cure rate of more than 95%.

We have also facilitated patient with our home quarantine package, wherein our doctor telephonically ensures patient's condition on daily basis.

Management keeps a close eye on safety and hygiene precautions for patient and staff, helping to adhere holistic care and cure.

## **FACULTY PUBLICATIONS**

Sr.	Name of Faculty	Name of	Title	Key aspect of the publication
No		Journal		
1	Dr. Mohan Bansal, Professor and HOD Dept of ENT	International journal of medical science and diagnosis research, Vol	COVID-19 An Otorhinolaryngiology perspective.	The common E.N.T. clinical features which are not specific for Covid-19 patients are rhinorrhea, nasal congestion, and sore throat. The E.N.T. manifestations which are found specific indicators of Covid-19, are dysfunctions of olfactory and taste sensations
2	Dr. Mohan Bansal, Professor and HOD Dept of ENT	Indian Journal of Otolaryngol ogy and Head & Neck Surgery; 2020; 72(4):443- 447	Otorhinolaryngology Malignancies in Children: A Case Series	The E.N.T. malignancies in children are rare and constitutes 20% of all paediatric malignancies. Carcinoma was found more common (68%) than the sarcoma (32%). The nasopharynx and laryngopharynx were found to be the most common sites. They usually present with features that are common in benign illnesses thereby masking the serious nature of the disease
3	Dr. Mohan Bansal, Professor and HOD Dept of ENT	OtolNeuroto l 2020;41(1):1 05-114	A Simple, Objective, and Mathematical Grading Scale for the Assessment of Facial Nerve Palsy	The proposed simple, objective and mathematical (SOM) method of grading facial nerve palsy is convenient and provides global and regional continuous percentage that can monitor the progress and classify the patients with facial paralysis into 6-point grades based on severity

## **FACULTY PUBLICATIONS**

4	Dr. Shashwat Nagar, Associate Professor, Community Medicine Dept	International Journal of medicine and public health, Vol 10, Issue 4, Oct-Dec 2020	Predictive factors affecting newborn survival admitted in special newborn care units of Tertiary hospitals	The publication focuses on development of a regression model for prediction of factos impacting newborn survival among the neonates admitted under the various SNCUs of Govt of Gujarat for year 2017-18. A total of 48,775 neonates were studied and it was found that the key determinants predicting the survival of neonates included place of delivery, mode of transport for referral to SNCUs, Type of admission, maturity of the neonate, weight of the child and indications of admission
5	Dr. Shashwat Nagar, Associate Professor, Community Medicine Dept	Healthline, Official publication of Indian association of preventive and social medicine. Volume 11, Issue 1	Study of self reported morbidity profile among the rural tribal population in a district of western India	The publication is on the various reported morbidities under the catchment area of a PHC in Gujarat where the most prevalent morbidities found were, oral, ophthalmic, musculoskeletal and noncommunicable morbidities. Among children below 5, ARI was the morbidity found most commonly
6	Dr. Amit Chauhan, Dr. Jaimin Pandya, Dr. Ashish Jain, Dept of Anesthesia	Indian Journal of Clinical anesthesia 2020; 7 (3)	Comparison of block characteristics and postoperative analgesia of 0.5% Levobupivacaine with 0.5% Ropivacaine in ultrasound guided supraclavicular block for orthopaedic forearm surgery – a prospective, comparative, randomized, clinical study	Levopubivacaine can be safely and effectively used in ultrasound guided supraclavicular block and it has early onset with prolonged duration of anaesthesia as well as prolonged post-operative pain relief compared to Ropivacaine

## **FACULTY ACHIEVEMENTS**

#### COMPLETION OF ADVANCE COURSE IN MEDICAL EDUCATION

Following faculties from Parul Institute of Medical Sciences & Research have successfully completed Advance Course in Medical Education from NHL Municipal Medical College, Medical council of India, Nodal Center for Faculty Development, Ahmedabad.

Dr. Jaba Rajguru, Professor, Department of Anatomy,

Dr. Mohmed Soeb Jankhwala, Associate Professor, Department of Microbiology,

Dr. Swati Mahajan, Associate Professor, Department of Physiology

## ICMR RESEARCH PROJECT GRANTED WITH PIMSR AS ONE OF THE PARTNER INSTITUTION IN THE PROJECT

Title: Design and pilot implementation of open-access web-portal using machine learning for predictive analysis and visualization of maternal and child under-nutrition in India on NFHS dataset

Funding: 53,00,000; Duration: 3 years, Funding Agency: Indian Council of Medical Research (ICMR), New Delhi, Principal Investigator: Dr. Arvind Yadav (PIET), Co-Principal Investigators: Kandarp Talati (CR4D); Rajiv Kumar Gurjwar (PIT); Dr. Geetika Madan-Patel (PIMSR)

#### **Research Brief:**

**Novelty:** This research aims to develop an open-access Web-portal which will automate prevalence of nutritional indicators and their determinants at district/state-level using NFHS-4 dataset. Expected outcome: The proposed research will democratize access to NFHS-4 data analysis and understanding key determinants at district level, enabling stakeholders to design data-driven, evidence-based nutritional interventions

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## STUDENTS CORNER

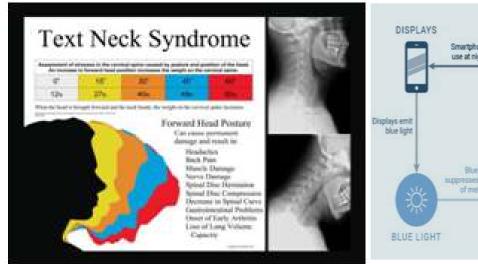
#### ARTICLE ON HEALTH EFFECTS DURING LOCKDOWN

Bangalore based webportal healthvision.in which contains articles, news and science based information on diagnosis, treatment, research, clinical trials and general health has published an article based on survey report of "survey of health risks during lockdown and preventive measures to protectyour eyes and spine".

The survey was done by Ms. Heer Y Pandit, Jui Patel, Vidhi Patel and Prashastee Patel all final year MBBS students at PIMSR. healthvision. in is owned by media icon which is found by Dr. Shrikrishna Mailengi in 2003.

As per their research, they have concluded that majority of the population in the age group of 18-30 years who spent most of their time in front of the screen unaware of the ideal distance that should be kept to avoid the damage to eyes. Those working from home had to spend most of their time working on their computers careless about the postures they were in for such long hours. This resulted in the appearance of symptoms like red eyes, watering of eyes, headache, puffiness of the eyes, dry eyes, neck pain, backaches and difficulty in inducing sleep. They are classical for computer vision syndrome which can be a forerunner of many eye infections and vision related problems on a long term basis. It was found that sustained exposure to blue light of the screens could lead to impaired retinal cells. This has been linked to problems like age-related macular degeneration (AMD), which can cause blurred vision. There is no cure for AMD, but the condition can be managed. Also the latency of the posture for such long durations caused neck pain and backaches which may be the early symptoms of text neck syndrome or spine abnormalities like kyphosis and other posture related problems. Patients with such symptoms should also be screened for related problems.

The article is available at https://healthvision.in/survey-of-health-risks-during-lockdown-prventive-measures-to-protect-your-eyes-and-spine/.





#### STUDENT ACHIEVEMENT

Our 3<sup>rd</sup> MBBS part 2 students Nandini Srivastava and Vitrag Tejani participated and won the runners up prize for the IAP undergraduate paediatric quiz no. 33<sup>rd</sup> at the divisional round

## MEDIA FLASH

આયુષ્યમાન ભારત યોજના હેઠળ વધુમાં વધુ

## દર્દીઓને સચોટ સારવાર પુરી પાડતી વડોદરાની પારૂલ સેવાશ્રમ હોસ્પિટલ

નિષ્ણાંત ડોકટર દ્વારા દર્દીને ટ્રાન્સફોરામીનલ લંબર ઇન્ટરબોડી ફ્યુઝન કરાયું

વડોદરા જીલ્લામાં વધુમાં વધુ આયુષ્યમાન ભારત યોજનાનો લાભ આપની પારૂલ સેવાલમ હોસ્પિટલમાં જરીલમાં જરીલ સર્જરી, આઇ.સી.યુ., ગંભીર મેડિકલ રોગોની સારવાર લાભાર્થીઓને સરળતાપૂર્વક સંપૂર્લપણે નિ:શુલ્ક આપવામાં આવે છે. આયુષ્યમાન ભારત યોજના સાથે સંલગ્ન થયા બાદ આજ દિન સુધી પારૂલ સેવાશ્રમ હોસ્પિટલ ખાતે ૧૫૦થી વધુ દર્દીઓને ઉત્તમ સારવાર મળેલ છે.

ગયા મહિનામાં આવો એક લાભાર્થી દર્દી પારૂલ સેવાશ્રમ હોસ્પિટલ ખાતે પગમાં ગંભીર ઇજા થવાથી દાખલ થયા હતા. આ દર્દીને તપાસતા માલુચ પડ્યું કે तेमने प्रणो मोटो पा ततो तेमक पंकता ચાર હાડકામાં કોમીન્યુટેડ ફેકચર અને ટેન્ડન્ટની ઇન્જરી હતી.

ઓર્થોપેડીક વિભાગના નિષ્ણાંત ડોક્ટર દ્વારા આ દર્દીનું ડ્રેસીંગ કરી જાનું ડીબાઇડમેન્ટ અને એક્સટેન્શન ટેન્ડન્ટ ને રીપેર કરવામાં આવ્યું તથા પંજાના ચાર હાડકામાં 'કે વાયરક થી જોડવામાં આવ્યા અને હીંચણ નીચે સ્લેબ આપવામાં આવ્યો. થોડા દિવસ પછી સ્ક્રીન ગાકટીંગ કરી આ દર્દીનો સ્ક્રીન ગ્રાક ધા પર બરાબર બેસી



#### દર્દી ગરીબ હોય સારવાર લેવા માટે સક્ષમ ન હતા

બંને દર્દી ગરીબ હોઇ સારવાર લેવા માટે સક્ષમ ન હતા. પરંતુ આ ભારત યોજનાનું કાર્ડ હોવાથી તેમની સારવાર શક્ય બની અને દર્દી સંપ્રશંપસે સાજા થઇ ઘરે જઇ શક્યા. પારૂલ સેવાશ્રમ હોસ્પિટલના નિપ્શાંત ડોક્ટરોની ટીમ દ્વારા અત્યાધુનિક સુધિધાઓની મદદથી દરરોજ આવા કેટલાક દર્દીઓને નિ:શુલ્ક લાભ આપવામાં આવે છે.

ગયો અને પેશન્ટને રજા આપવામાં આવી. ૩૫ વર્ષના પુરૂષ દર્દી પીઠના નીચેના બાગમાં તથા ડાબા પગમાં ૮ મહીનાથી દુઃખાવા તેમજ નમળાઇની તકલીક સાથે પારૂલ સેવાશ્રમ હોસ્પિટલમાં દાખલ

એમ.આર.આઇ. કરાવતા મણકામાં લીસ્પેસીસ જણાવું તેમજ તેની ઘળી બાજુનું કાલું સાંકડુ થઇ ગલું હતું જેમાંથી પગને સપ્લાઇ કરતા શાનતંત્રઓ પર દબાલ આવતું હતું.

નિષ્યાંત ન્યુરોસર્જન ડોક્ટર દારા આ દર્દીને સ્પેશ્યલ સાધન દારા ટ્રાન્સફોરામીનલ લંબર ઇન્ટરબોડી ક્યુઝન કર્યું અને ઓપરેશન પછી તરત જ ચાલવામાં આવ્યા. તેનું દર્દ મટી ગયું તેમજ પ દિવસમાં દર્દીને રજા આપવામાં

પારૂલ યુનિ. દ્વારા ચાર વેન્ટિલેટર સહિત ૨૫ વ્યક્તિનો સ્ટાફ ડેપ્યુટ કરાયો

## કોરોના સામેની લડત માટે પારૂલ હોસ્પિટલનો સ્ટાફ સજ્જ કરાયો

વડોદરા જિલ્લાની કમિટીમાં પારૂલ યુનિ.ના ડાયરેક્ટર ડો. ગીતીકા પટેલ પણ સભ્ય

। संजीवस ।

હાલની પરિસ્થિતીમાં કોક્ટર્સ અને નસં સહિતની હેલ્થકેર કોમ્યુનિટી કોવિડ - ૧૯ (કોરોના વાઈરસ) સામેની લડતમાં પહેલી હરોળમાં છે. ત્યારે વડોદરાની પારૂલ યુનિવર્સિટી સંલગ્ન પારૂલ સેવાશ્રમ હોસ્પિટલ પણ તેમાંથી બાહાત રહી નવી. પારૂલ સેવાશ્રમ હોસ્પિટલના ડોક્ટર્સ અને નર્સે સહિતનો હેલ્થકેર સ્ટાફ શહેરની હેલ્થકેર સિસ્ટમને ટેકો આપી રહ્યો છે. સરકાર દારા પણ તાજેતરમાં પારૂલ યુનિ.ને કોરોના વાઇરસ ટેસ્ટિંગ માટેની મેજુરી આપવામાં આવી છે. ત્યારે પારૂલ સેવાશ્રમ તોસ્પિટલ દારા ગોત્રી મેડિકલ હોસ્પિટલ ખાતે ચાર વેન્ટીલેટર સાથે ૨૫ વ્યક્તિનો સ્ટાક પણ ડેપ્યુટ કરાયો છે. તેટલું જ નહીં કોવિડ ૧૯ સામેની લડતમાં વડોદરા જિલ્લાની સંકલન સમિતીમાં પારૂલ યુનિ.ના મેડિકલ ડાયરેક્ટર છે. ગીતીકા મદન પટેલને પણ સબ્ય બનાવવામાં આવા છે.

હાલની કોરોના વાઈરસની ગંભીર સ્થિતીમાં પારૂલ સેવાગ્રમ હોસ્પિટલ ખાતે મેનેજમેન્ટ દારા કોવિક - ૧૯ના શંકાસ્પદ દર્દીઓ માટે ખાસ આઇ

શોલેશન વોર્ડ પણ શરૂ કરાયો છે. જે વોર્ડમાં હાલ ચાર બેડની સુવિધા ઉપલબ્ધ છે. જે વધારીને ૨૦ બેંડની કરવાની તૈયારીઓ પણ મેનેજમેન્ટ દારા કરી દેવામાં આવી છે. તાજેતરમાં દરેક જિલ્લામાં કોવિક - ૧૯ માટે ખાસ સંકલન સમિતી બનાવવામાં આવી છે. જે સમિતીમાં પારૂલ સેવાયમ હોસ્પિટલના મેડિકલ ડાયરેક્ટર ડો. ગીતીકા પટેલની સભ્ય તરીકે નિવામુંક કરાઈ છે. ડેપ્યુટ કરાયો છે.

પસંગે પારૂલ લુનિ.ના મેડિકલ ડાયરેક્ટર ડો. ગીતીકા પટેલે જણાવ્યું હતું કે, ભારતમાં હાલ વેન્ટીલેટરની માત્ર થણી જ વધી ગઇ છે. તે માગને પહોંચી વળવા માટે પારૂલ સેવાલમ હોસ્પિટલ દારા ગોગી ખાતે આવેલી કોવિડ - ૧૯ની ખાસ હોસ્પિટલ માટે રૂ. પ લાખની કિંમતના ચાર વે-ટીલેટર આપવામાં આવ્યા છે. તેમજ અંદાજે ૨૫ વ્યક્તિનો સ્ટાક પણ

## ડો.ગીતીકા પટેલ જિલ્લા સંકલન સમિતીમાં સમાવાયા પારૂલ યુનિ.ની પારૂલ સેવાશ્રમમાં ટેલી કન્સલ્ટેશનની શરૂઆત કરાઇ ગોત્રી હોસ્પિટલમાં 25 લોકોનો સ્ટાક સેવાઅર્થે મોકલાયો

#### TALK ON INNOVATION

સિટી રિપોર્ટર . વડોદરા

પારુલ યુનિ. સંલગ્ન પારૂલ સેવાશ્રમ હોસ્પિટલના ડોક્ટર્સ અને નર્સ સહિતનો હેલ્થકેર સ્ટાફ કોવીડ-19 મહામારીમાં કરજ બજાવી રહ્યો છે. દર્દીને સાજા કરવાની તકેદારીની તમામ સાવચેતી સાથે સમાજ અને શહેરીજનો માટે મલ્ટી સ્પેશિયાલીટી હોસ્પિટલમાં ખાસ ફ્લૂ ઓપીડી શરૂ કરવામાં આવી છે.

કોવિડ-19નાં શંકાસ્પદ દર્દીઓ માટે આઇશોલેશન વોર્ડ પણ શરૂ કરાયો છે. જેની ક્ષમતા આવનારા સમયમાં 20 બેડની થશે. હોસ્પિટલે ગોત્રી હોસ્પિટલમાં 4 વેન્ટીલેટર અને 25 મેડિકલ-પેરામેડિકલનો સ્ટાફ પણ સેવા અર્થે આપ્યો છે. પારૂલ સેવાશ્રમ

હોસ્પિટલ દ્વારા હાલમાં ટેલીમેડિસિન સર્વિસ. ઇમરજન્સી મેડીકલ કેર અને આસીસ્ટન્ટ ડિઝિટલ સર્વિસ પણ શરૂ કરાઇ છે. જેમાં દર્દીઓને ડોક્ટર્સ દ્વારા ટેલી કન્સલ્ટેશન કરાય છે.

ડો. ગિતીકા પટેલે જણાવ્યું હતું કે, મેડિકલ સેન્ટર તરીકે મારું માનવું એમ છે કે, સમાજને આરોગ્યની સાવચણી અને આરોગ્યપ્રદ રાખવાની અમારી પ્રથમ ફરજ છે. અમે સમગ્ર સમાજના ઋણી પણ છીએ.

અત્રે ઉલ્લેખનીય છે કે, ડિસ્ટ્રીક સંકલન સમિતીમાં ડૉક્ટર ગિતીકા પટેલનો સમાવેશ કરવામાં આવ્યો છે. સાથે ટેસ્ટ સરકારની પરવાનગી પશ મળી હોવાથી નજીકના જ સમયમાં પારૂલ સેવાશ્રમમાં કોવીડ-19ના ટેસ્ટ પણ શરૂ કરવામાં આવનાર છે. જે અમારું ઋણ ચૂકવશે.



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## **MYTH AND FACTS**

MYTH: PEOPLE WITH COVID WILL DIE.

**FACT:** The mortality rate of the disease is 3%. This means that out of every 100 people who suffer from corona virus, only 3 people are at risk of mortality. Also if you have a healthy immune system, you can most definitely fight off the disease with the right care. So if you are under the attack of corona virus, just focus on following your doctor taking good care of yourself, maintain a good regime of diet and you need not worry to be under the death toll.

TAKING A HOT BATH CAN PREVENT THE NEW CORONAVIRUS DISEASE. MYTH:

Fact : Taking a hot bath will not prevent you from catching COVID-19. Your normal body temperature remains around 36.5°C to 37°C, regardless of the temperature of your bath or shower. Actually, taking a hot bath with extremely hot water can be harmful, as it can burn you. The best way to protect yourself against COVID-19 is by frequently cleaning your hands. By doing this you eliminate viruses that may be on your hands and avoid infection that could occur by then touching your eyes. mouth, and nose.

MYTH: REGULARLY GARGLING WITH SALTWATER OR SALINE CAN HELP PREVENT INFECTION WITH THE NEW CORONAVIRUS, AS WELLAS DRINKING WATER TO "FLUSH" THE VIRUS FROM YOUR MOUTH.

**Fact**: There is no evidence that regularly gargling has protected people from infection with the new corona virus. While this may help soothe a sore throat, this practice will not prevent the virus from entering your lungs—neither will drink frequent sips of water.

MYTH: EATING GARLIC OR LEMON (AND OTHER FOODS COMMONLY USED AS HOME REMEDIES FOR FLU AND COMMON COLD) CAN HELP PREVENT INFECTION WITH THE NEW CORONAVIRUS.

Fact: Garlic is a healthy food that may have some antimicrobial properties. Similarly, vitamin C is an essential nutrient that can support immune function. However, there is no evidence from the current outbreak that eating garlic or lemon (or other foods for that matter) has protected people from the new corona virus.

MYTH: THE NEW CORONAVIRUS CANNOT BE TRANSMITTED IN AREAS WITH HOT AND HUMID CLIMATES.

**Fact**: The COVID-19 virus can be transmitted in ALL AREAS, including areas with hot and humid weather.

MYTH: DRINKING WARM WATER AND GETTING ENOUGH SUNLIGHT ARE EFFECTIVE IN PREVENTING COVID-19.

**Fact**: There is no evidence that the COVID-19 can be killed at higher temperatures. Drinking warm water and getting enough sunlight may have other health benefits. For example, sunlight is good to get Vitamin D, but too much exposure to sunlight may also lead to sunburn.

## MEDI – QUIZ

1.	When WHO officially declared corona virus as Pandemic?			
	A) 9 January 2020	B) 13 January 2020		
	C) 11 March2020	D) 30 January 2020		
2.	Incubation period of Corona Vi	Incubation period of Corona Virus Infection?		
	A) 2-14 days	B) 1-7 days		
	C) 3-21 days	D) 4-28 days		
3. Which of the following test is considered a		considered as gold standard test for the Diagnosis of Covid 19?		
	A) Real Time RT PCR	B) Rapid Antigen Test		
	C) Rapid Antibody Test	D) ELISA		
4.	SARS novel corona Corona Vir	rus belongs to which of the following family?		
	A) Spirochetes	B) DNA virus		
	C) RNA virus	D) Mycosites		
5. Which of the following antibodies develop first against during Covid 19 and recent Exposure?		bodies develop first against during Covid 19 and helps to identify		
	A) IgA	B) IgM		
	C) IgD	D) IgG		
6. Which fist nation registered Covid-19 Vaccine?		ovid-19 Vaccine?		
	A) USA	B) Russia		
	C) China	D) Australia		

4.(C)

1. (D)

2.(D)

3. (C

5.(B)

6.(C)

This newsletter comes to you with the efforts of our literature club

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## **#COVID WARRIORS**



## We are available 24 x 7 for all Emergency Services



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