AHMEDABAD MEDICO NEWS Registered under RNI No. GUJENG/2006/17532 Published on 27th of Every Month and Permitted to Post at without Prepayment No. PMG/HQ/99/2019-2021 Valid Upto 31-12-2021 Ahmedabad PSO on 27th Date of every Month under Regd. No. GAMC / 1548 / 2019-2021 issued by SSP Ahmedabad. Valid upto 31-12-2021

PUBLISHER AND EDITOR : DR. DHIREN R. MEHTA HON. SECRETARY, ON BEHALF OF AHMEDABAD MEDICAL ASSOCIATION. AMA HOUSE, 1st FLOOR, Opp. H.K. Arts College, ASHRAM ROAD, AHMEDABAD-380 009. PHONE : 2658 87 75

NAME OF THE PRINTING PRESS & ADDRESS -: HITESHKUMAR & COMPANY AMRUT INDUSTRIAL ESTATE, DUDHESHWAR, AHMEDABAD - 380 004. M. 92288 85157, E-mail : hiteshkumarandco@gmail.com

Month Face Value Rs. 08=00 - Yearly Face Value Rs. 96=00

AHMEDABAD MEDICAL ASSOCIATION

(Branch of Indian Medical Association)

ESTD : 1902

AHMEDABAD MEDICO NEWS

AMA House, First Floor, Opp. H. K. Arts College, Ashram Road, Ahmedabad - 380 009
Phone : (079)2658 87 75
Email: amagsbima@yahoo.co.in • Website: www.ahmedabadmedicalassociation.com

VOL. 15 | JULY-2020 | ISSUE-3

HIGHLIGHTS

PROGRAMMES

15-08-2020 9:00 AM Independence Day Celebration

15-08-2020 9:00 PM Webinar - 3 Legal Awareness for Medical Practitioners

ARTICLES

- **Understanding Treatment of Covid-19 :** By Dr. Atul K Patel, Dr. Ketan Patel
- **FAQs on Tocilizumab usage in Covid-19 Patients :** By Dr. Atul K Patel
- **Ischemic Stroke :** By Padmashri Dr. Sudhir Shah, Dr. Heli Shah
- **Intracranial Haemorrhage :** By Padmashri Dr. Sudhir Shah, Dr. Heli Shah
- **For the continuation of Kangaroo Mother Care and Breast Feeding during the pandemic of Covid-19 in India :** By Dr. Shashiben Vani

'SECRET TO SUCCESS IS THE RESULT OF PREPARATION, HARD WORK AND PERSEVERANCE'

Message From President's & Hon. Secretary's Desk

PRESIDENT'S MESSAGE

Dear Doctors,

The war against COVID-19 Pandemic seems to be unending at present. We all are waiting eagerly for the invention of Vaccine against it. It is the only way out of this CORONA PANDEMIC. All over India more than 1302 Doctors have got infected and more than 100 have lost their lives. Even thinking about this number brings sadness and fear in us. We are always seeing patients with a thought in back of our mind that we should not get infected.

In this bulletin I have specifically put forward protocols for clinically treating COVID-19 patients and also when to use Steroids, Inj. Remdesivir and Inj. Tocilizumab and anti coagulants. It has come to our notice that there is still lot of confusion where treatment of COVID-19 patient is concerned.

We have been very lucky in Court matters also. Whatever PIL our AMA did, fortunately we were able to get everything. Our first PIL was about not asking for permission for COVID-19 testing from government, we got it – then we

asked them for COVID-19 Testing on prescription of MBBS Doctors also along with M.D.- well that was also approved. Our demand for –Pre-operative testing, Testing before all Invasive procedures, Testing in Cancer Patients- before Chemotherapy , Radiotherapy or any operative procedures , In Pregnant Ladies before EDD and before CS. The most important demand accepted was testing in Frontline Workers like – Doctors, Nurses, pharmacists etc.... Government also reduced the price of RTPCR Testing on AMA'S demand as was in other states. So Ahmedabad Medical Association has been active fighting for the betterment and rights of the fraternity as well as the Society at large.

Two webinars- one of Swami Gyanvatsal Swamiji in collabration with MMA and another with Dr. Atul Patel I.D.Specialist who gave excellent talk on COVID-19 INFECTION AND TREATMENT and Jay Vasavda – who gave a Motivational talk to Doctors were very well attended online.

The trying times has taught us to be more cautious and 'human'. Let us all now be more brave and practice with full precautions.

" LIFE NEVER COMES WITH AN INSTRUCTION MANUAL YOU LIVE AND YOU LEARN AT EVERY INSTANCE "

Dr. Mona P. Desai
President
Ahmedabad Medical Association

Dr. Dhiren Mehta
Hon. Secretary
Ahmedabad Medical Association

A Heartfelt Tribute to

DR. PANKAJ SHETH

A Senior Family physician, Active worker of AMA

Past Vice President & Hon. Treasurer of AMA

WE LOST A WONDERFUL SOUL
TO COVID-19 PANDEMIC
HE FOUGHT BRAVELY A LOSING
BATTLE OF COVID-19

A TRUE CORONA WARRIOR

Kindly Join Us to Pay Tribute

Sunday 2/8/2020 | 10:00 AM onwards

LIVE YouTube LIVE

Ahmedabad Medical Association

Dr. Mona Desai
President AMA

Dr. Dhiren Mehta
Secretary AMA

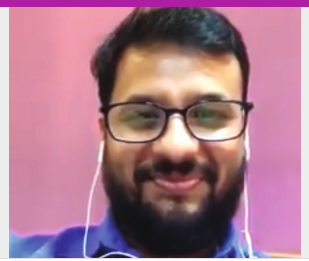
Media Interview with President - AMA

Webinar-1 of AMA - 30-06-2020

DOCTORS, ANGELS ON EARTH - SHRI GYANVATSAL SWAMI JI | Live

1,211 watching now

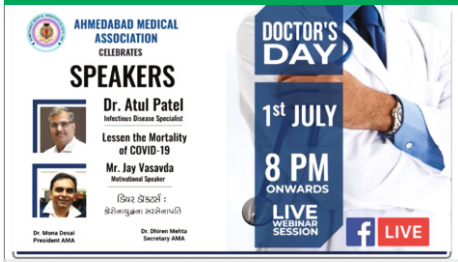
INTERVIEW OF DR. MONA DESAI-AMA- PRESIDENT WITH R.J. DHWANIT on DOCTOR'S DAY-01/07/2020

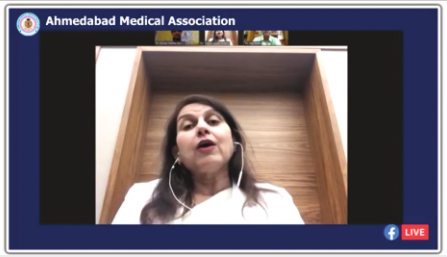


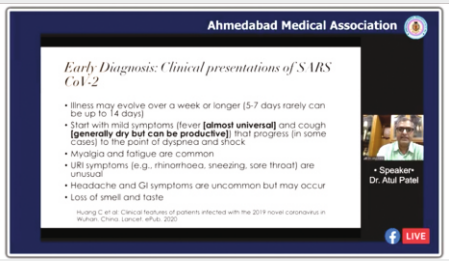
Managing Committee Meeting at AMA

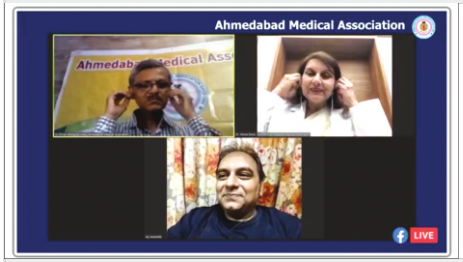
Managing Committee Meeting at AMA

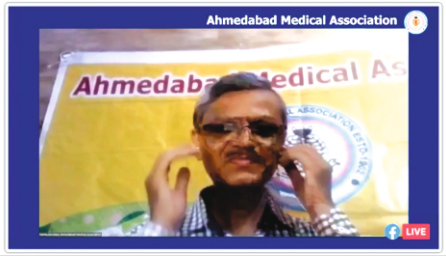
Webinar-2 of AMA - 01-07-2020











Video Conferencing with CM Shri Rupaniji

A.M.A. BULLETIN INDEX

AHMEDABAD MEDICAL ASSOCIATION YEAR : 2019-2020

OFFICE BEARER

PRESIDENT
DR. MONA P. DESAI
M. 9825016769

VICE - PRESIDENT
DR. ASHISH A. BHOJAK
M. 99099 04571

DR. CHINTAN K. GANDHI
M. 99799 73239

HON. FINANCE SECRETARY
DR. PANKAJ K. SHETH
M. 98241 95362

HON. SECRETARY
DR. DHIREN R. MEHTA
M. 98988 54158

HON. JOINT SECRETARY
DR. SUNIL B. CHENWALA
M. 94284 05490

DR. VIPUL V. SHAH
M. 94265 33707

HON. LIBRARY SECRETARY
DR. RACHIT J. PATEL
M. 97266 57062

IMM. PAST PRESIDENT
DR. MEHUL N. SHELAT
M. 98253 98891

MANAGING COMMITTEE MEMBERS

P.G.

DR. NAIMISH R. BHOJAK	M. 98259 10060	**NIRNAYNAGAR**
DR. RAJESH M. DESAI	M. 99251 93399	**THALTEJ**
DR. NISARG D. DHARAIYA	M. 75672 00111	**ELLIS BRIDGE**
DR. KUNTAL H. GAJJAR	M. 98250 87821	**USMANPURA**
DR. MANJIT J. NAYAK	M. 99982 27871	**NAVJIVAN POST**
DR. GAURANG J. PATEL	M. 97243 19934	**GHATLODIA**
DR. GARGI M. PATEL	M. 98243 43744	**SHAHIBAUG**
DR. MAITREYI J. PATEL	M. 99794 87372	**NARANPURA**
DR. MITESH K. PATEL	M. 94094 09300	**SABARMATI**
DR. NAITIK B. PATEL	M. 98981 29475	**MANINAGAR**
DR. SAHIL N. SHAH	M. 94285 01412	**NAVRANGPURA**
DR. SUMIT P. PATEL	M. 98242 23626	**GANDHINAGAR**

OTHER THAN P.G.

DR. KALPITA M. DAVE	M. 99245 58450	**MANINAGAR**
DR. ADIT K. DESAI	M. 97243 04018	**BODAKDEV**
DR. AMIT K. MISTRY	M. 98253 31266	**MANINAGAR (EAST)**
DR. JAGDISH J. MOD	M. 98986 72481	**THALTEJ**
DR. PRAKASH P. MOHATTA	M. 94263 55122	**ISANPUR**
DR. SATISH M. PANDYA	M. 98259 56928	**SHAHIBAUG**
DR. HEMANT B. PATEL	M. 98798 13741	**RANIP**
DR. SURESH K. PATEL	M. 98240 53995	**GHATLODIA**
DR. H. G. PATWARI	M. 91063 18533	**BAPUNAGAR**
DR. SHAILESH D. RAVAL	M. 98253 00296	**BOPAL**
DR. JITENDRA H. SHAH	M. 98240 22362	**NARANPURA**

BULLETIN COMMITTEE

DR. MONA P. DESAI
DR. VIPUL V. SHAH
DR. NAITIK B. PATEL
DR. K. R. SANGHAVI
DR. ATUL J. GANDHI
DR. DEVENDRA R. PATEL
DR. MAULIK S. SHETH
DR. URVESH V. SHAH

15th August - Independence Day

Our Ahmedabad Medical Association is going to celebrate 73rd Independence Day on SATURDAY - 15th August, 2020 at 9.00 a.m. This celebration will only be limited to office Bearers & Managing Committee members. **We will be doing a live Telecast of the event.** Will Send you the link. **All come with mask and observe social distancing.**

Flag Salutation : 9.00 a.m. sharp
Date : 15th August, 2020 Saturday
Venue : Ahmedabad Medical Association Premises.

DR. MONA P. DESAI
President

DR. DHIREN R. MEHTA
Hon. Secretary

WEBINAR NO-3 -LEGAL AWARENESS FOR MEDICAL PRACTITIONERS - 15/08/2020 - A PPS WEBINAR

Our Ahmedabad Medical Association is organising a very interesting and useful WEBINAR on 15 th August. It is a PPS Webinar. This Webinar is going to be useful to all the Medical Practioners as a very eminent Lawyer will be giving us legal tips useful in our day to day practice.

DAY & DATE :- SATURDAY - 15th AUGUST-2020
TIME :- 9:00 PM onwards
TOPIC :- LEGAL AWARENESS FOR MEDICAL PRACTIONERS
SPEAKER :- **MR. DEEPAK SHUKLA** - An Eminent and Senior Lawyer.

Link will be sent to you later.
SO DO NOT MISS THIS OPPORTUNITY.

DR. MONA P. DESAI
President

DR. DHIREN R. MEHTA
Hon. Secretary

AHMEDABAD MEDICAL ASSOCIATION

ANNUAL ELECTION 2020-2021

AMA OFFICE HAS RECEIVED FOLLOWING VALID NOMINATIONS FORMS

All Members elected uncontested so there is no election on 2-8-2020.

PRESIDENT [ONE POST]

1.	**DR. GADHAVI KIRITKUMAR C.**	**ELECTED UNCONTESTED**

VICE - PRESIDENT [TWO POSTS]

1.	**DR. PATEL GARGI MAHESH**	**ELECTED UNCONTESTED**
2.	**DR. SHETH MAULIKKUMAR S.**	**ELECTED UNCONTESTED**

HON. JOINT SECRETARY [TWO POSTS]

1.	**DR. RAO DEEPAK M.**	**ELECTED UNCONTESTED**
2.	**DR. SHAH SAHIL N.**	**ELECTED UNCONTESTED**

HON. LIBRARY SECRETARY [ONE POST]

1.	**DR. PANCHAL DEVAL D.**	**ELECTED UNCONTESTED**

MANAGING COMM.MEMBERS P.G. [TWELVE POSTS]

1	DR. DESAI RAJESH M.	ELECTED UNCONTESTED
2	DR. DHARAIYA NISARG D.	ELECTED UNCONTESTED
3	DR. GUPTA MAHESH G.	ELECTED UNCONTESTED
4	DR. NAYAK MANJIT J.	ELECTED UNCONTESTED
5	DR. PARIKH RUTVIJ B.	ELECTED UNCONTESTED
6	DR. PATEL ANKIT MANIBHAI	ELECTED UNCONTESTED
7	DR. PATEL MAITREYI J.	ELECTED UNCONTESTED
8	DR. PATEL NAITIK B.	ELECTED UNCONTESTED
9	DR. PATEL SMEET S.	ELECTED UNCONTESTED
10	DR. PATEL SUMIT P.	ELECTED UNCONTESTED
11	DR. PATEL YASH D.	ELECTED UNCONTESTED
12	DR. SHAH SUNIL NAVINBHAI	ELECTED UNCONTESTED

MANAGING COMM. MEMBERS - [Other than P.G.] [TWELVE POSTS]

1	DR. BHANSALI PIYUSH M.	ELECTED UNCONTESTED
2	DR. DAVE KALPITA MANISH	ELECTED UNCONTESTED
3	DR. MOD JAGDISH J.	ELECTED UNCONTESTED
4	DR. MOHATTA PRAKASH P.	ELECTED UNCONTESTED
5	DR. PANDYA SATISH M.	ELECTED UNCONTESTED
6	DR. PATEL HEMANT B.	ELECTED UNCONTESTED
7	DR. PATEL RAMESH I.	ELECTED UNCONTESTED
8	DR. PATEL SURESH K.	ELECTED UNCONTESTED
9	DR. PATWARI H. G.	ELECTED UNCONTESTED
10	DR. RAVAL SHAILESH D.	ELECTED UNCONTESTED
11	DR. SHAH JAGMOHAN M.	ELECTED UNCONTESTED
12	DR. SHAH JAYESH C.	ELECTED UNCONTESTED

DR. MONA P. DESAI
Chairman

DR. DHIREN R. MEHTA
Returning Officer

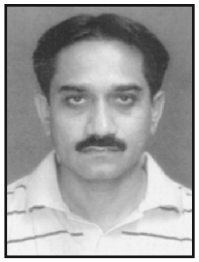
DR. KIRTIBHAI M. PATEL
Member

DR. DEVENDRA R. PATEL
Member

Dt. 10-7-2020 **Election Committee**

CONGRATULATIONS

CONGRATULATION TO



DR. SAUMIL P. MERCHANT

M.B.B.S., M.D. (Forensic Medicine)
LL.B. LLM (Criminal), PHD (Forensic Medicine)

FOR GETTING DOCTORATE (Ph.D.) DEGREE :

Title of Thesis. "Age of Epiphyseal Union at the Elbow and Wrist Joint amongst the Adolescent Boys and Girls" (Age - Group of 10-18 years) in Ahmedabad of Gujarat.

PRIDE OF AHMEDABAD MEDICAL ASSOCIATION - 10th, 2019

FULL NAME : **KHATRI KINTAN HIMANSHUBHAI**

TOTAL MARKS : **572 / 600**

TOTAL MARKS IN PERCENTILE : **99.99**

SCHOOL : **HIRAMANI SCHOOL**

FATHER'S NAME : **DR. HIMANSHU SURENDRAKUMAR KHATRI**

MOTHER'S NAME : **MEERA HIMANSHU KHATRI**

MOBILE NUMBER : **8758066380**

Authentic PPE KITS and N 95 Masks available at AMA

- if required you can acquire from AMA.

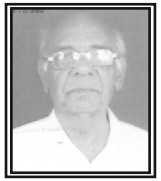
WE WELCOME FOLLOWING NEW LIFE MEMBERS

9983	L	DR. NIGAM SHASHIKANT KAILASHCHANDRA
9984	L	DR. RAVAL KRUTIK VIPALBHAI
9985	L	DR. PATIDAR ARVIND KUMAR
9986	L	DR. PATEL NIRAVBHAI PIYOOSHKUMAR
9987	LC	DR. BRAHMBHATT SHAMIK SHASHIKANT
9988	LC	DR. THAKKER BEENA JAGDISHBHAI
9989	L	DR. PATEL PRATIK MAHENDRABHAI
9990	L	DR. SHAH MALHAR JAYDEEPBHAI
9991	L	DR. TEWARI NEHA KHANJAN
9992	LC	DR. MALIWAD CHIRAG RAMESHBHAI
9993	LC	DR. PAGI HEENABEN HIRABHAI
9994	L	DR. SHAH DEVANSHI ASHISH
9995	L	DR. PATEL SAVANKUMAR BHAGAVANDAS
9996	L	DR. SHAH SHWETANG CHANDRESH
9997	LC	DR. JODHANI HIMANSHU MADHAVBHAI
9998	LC	DR. JODHANI BHOOMIKA HIMANSHU
9999	L	DR. PATEL URVI JAYESH
10000	LC	DR. GOHIL CHANDRAKANT SURESHBHAI
10001	LC	DR. SOLANKI RUPALBEN NATVARLAL
10002	LC	DR. DAMOR VIJAYKUMAR MANILAL
10003	LC	DR. DAMOR MITTAL VIJAYKUMAR
10004	L	DR. SOLANKI SAHIL RAJESHBHAI
10005	L	DR. RASHTRAPAL NIRAV BODHIRAJ
10006	LC	DR. MAHERIYA KRUNAL ISHVARBHAI
10007	LC	DR. MAHERIYA PAYAL KRUNALBHAI
10008	L	DR. JOSHI NITESH DINESHBHAI
10009	L	DR. SHAH PRANAV BIPINCHANDRA

OBITUARY

We send our sympathy & condolence to the bereaved family.
May his/her soul rest in eternal peace.

DR. NARESHBHAI KALABHAI PATEL
Date of Birth : 16-02-1949
Date of Death : 18-03-2020



DR. KANAIYALAL MANILAL SHAH
Date of Birth : 05-11-1939
Date of Death : 01-04-2020

DR. GUNVANTBHAI M. SHAH
Date of Birth : 02-03-1938
Date of Death : 11-04-2020

DR. HIDAYATULLAM A. MEMON
Date of Birth : 09-01-1946
Date of Death : 27-05-2020

OBITUARY

We send our sympathy & condolence to the bereaved family.
May his/her soul rest in eternal peace.

DR. SURENDRAKUMAR P. SHUKLA
Date of Birth : 13-06-1944
Date of Death : 22-06-2020

DR. NARESHBHAI BASANTLAL BAJAJ
Date of Birth : 15-08-1968
Date of Death : 03-07-2020

CORONA WARRIOR

DR. UPENDRA K. VITHALANI
Date of Birth : 23-03-1961
Date of Death : 10-07-2020

CORONA WARRIOR

divyabhaskar.com

AMCના નોટિસ રાજ સામે ઇન્ડિયન મેડિકલ એસોસિએ

અમે બળવો કરીશું તો

દવાખાનાં નહીં ખોલનારા 280 ડોક્ટરોને નોટિસ અપાતા રોષ

ડોક્ટરો ક્લિનિક ખોલવા તૈયાર, પોલીસ દર્દીઓને આવવા દેતી નથ

ડો.મોના દેસાઈ

ડો.કમલેશ સેની

'અમે અમારી જવાબદારી જાણીએ છીએ

ડો. મોના દેસાઈએ જણાવ્યું કે, તમામ ડોક્ટરોએ એમબીબીએસ એમડી અને એમએસ સુધીનો અભ્યાસ કરેલો છે અને અમે અમા જવાબદારી સારી રીતે જાણીએ છીએ. બધા પોતાની વોલેન્ટરી સે આપી રહ્યાં છે. કોઈ કોઈની પર ઉપકાર કરતું નથી, પણ તમે ધમક અને ડોક્ટરો બળવા પર ઊતરશે તો તકલીફ થશે.

ડૉક્ટર્સ | અમદાવાદ

ાઈવેટ ડોક્ટરોને ક્લિનિક અને ્ટિંગ હોમ ખોલવા બાબતે કારી અધિકારીઓએ પાઠવેલી ્ટિસ અને તેમાં વપરાયેલી ાના તબીબી આલમમાં ઘેરા ્રાત પડ્યા છે. અમદાવાદ ન એસોસિએશન અને ન મેડિકલ એસોસિએશને ્ટિસને સખત શબ્દોમાં છે. ડોક્ટરોએ ચીમકી ્યું છે કે, તમે ધમકાવશો ના પર ઊતરીશું તો

ેડિકલ એસો. ડો. મોના દેસાઈએ ્કોર્પોરેશન જે રીતે ્સ આપી છે અને તેમાં જે ધમકી અને ડરાવવા માટે શબ્દપ્રયોગ થયો છે તે કોઈ પણ રીતે ચલાવી શકાય તેમ નથી. અમને અમારી ફરજ ખબર છે અને નિભાવીએ છીએ. લોકડાઉનના સમયમાં અમે ક્લિનિક ચાલુ રાખવા તૈયાર છીએ, પણ દર્દીને ક્લિનિક સુધી પોલીસ આવવા જ દેતી નથી. કોર્પોરેશને ડોક્ટરોને નોટિસો આપવાને બદલે દર્દીને હોસ્પિટલ જવાની છૂટછાટ આપવાની સાથે આસાનીથી હોસ્પિટલ સુધી પહોંચી શકે તેવી વ્યવસ્થા કરવી જોઈએ.

લોકડાઉનમાં એક એવો કિસ્સો બતાવો કે શહેરમાં કોઈ દર્દી ડોક્ટરની સારવાર વિના મરી ગયું હોય. ઊલટાનું અમે દવાખાના ખોલીને બેસીએ છીએ, દર્દીને આવવું હોય છે, પણ પોલીસ આવવા દેતી નથી. ખાલી એડમિનિસ્ટ્રેશનથી કશું નહિ થાય. પોલીસ, એડમિનિસ્ટ્રેશન અને ડોક્ટરે પરસ્પર કામ કરવાનું

જ્યારે ઇન્ડિયન મેડિકલ ના માનદમંત્રી ડો. કમલેશ જણાવ્યું કે, આ મહ પહોંચી વળવા ઇન્ડિયન એસોસિયેશનની ગુજર લોકલ બ્રાન્ચ સરકાર અ પ્રશાસન સાથે સંકલન ક આપી રહી છે. તાજેતર સરકારી અધિકારી દવાખાનાં નહિ ખોલો

CORONAMETER	WORLD	INDIA	GUJARAT	AHMEDABAD
TOTAL POSITIVE CASES	1,40,58,013	10,36,497	46,516	23,964
TOTAL DEATHS	5,94,993	26,267	2,108	1,537
TOTAL RECOVERED	83,59,482	6,51,308	32,944	18,291

Ahmedabad Mirror
To advertise with us, call 1800 120 5474 | To order your copy, call 1800 1200 004 toll free or visit - subscribe.timesgroup.com
TEMPERATURE: Max 33.4 | Min 25.7 | Humidity 73% | RAIN, THUNDERSHOWERS | Sunrise 0604 hrs | Sunset 1927 hrs | Sensex 37070 | Nifty 10901 | Gold 48675 | Silver 67657

AMA TAKES STATE GOVT TO HIGH COURT AGAIN

WILL GUJARAT GOVT RAMP UP COVID-19 TESTING TO MATCH ITS POPULATION?

Claiming that Covid-19 testing in Gujarat is way less compared to other States, the Ahmedabad Medical Association has approached Gujarat High Court seeking tests proportionate to population, setting up of labs in all districts; HC to hear plea next week

| Nikunj.Soni @Timesgroup.com | TWEETS @NikunjMIRROR

With Gujarat registering an all-new high with 949 coronavirus cases and breaching the 46,000-mark on Friday, one would expect the State government to ramp up testing, identify those infected, and break the chain of transmission. Amid allegations by medical experts that the Gujarat government is managing data instead of handling coronavirus, the Ahmedabad Medical Association has moved Gujarat High Court to increase Covid-19 testing and make it proportionate to the State's population.

The association has argued that current testing is way less compared to other states. The plea is likely to come up for hearing next week along with the suo motu petition over issues that have cropped up on account of the outbreak of Covid-19 in the State.

CONTINUED ON PAGE 4 »

City | AhmedabadMirror

Will govt ramp up Covid-19 testing?

CONTINUED FROM PAGE 1

"We have demanded more testing. It is being seen that multiple people in a single family are getting infected with the virus as super spreaders are not being identified. If testing is increased, infection can be detected and cured, and in turn, contained," said Dr Mona Desai, president of AMA.

The plea states that though testing has been increased in State, it is not adequate if Gujarat's 6.27-crore population is taken into account. At the time of filing the plea, as per reports, Gujarat conducted 6,000 tests daily. In comparison, Maharashtra with a population of 11.42 crore conducted 30,000 tests, Uttar Pradesh with 20.42 crore people carried out 29,000 tests, Tamil Nadu with 6.79 crore people carried out 35,000 tests and New Delhi with a population of 1.9 crore performed 23,000 tests, daily.

The AMA had filed the plea on July 7 through advocate Mitul Shelat, but the matter is yet to be heard. The four demands made by them in the application included permission for MBBS doctors to prescribe Covid test, permission within 24 hours for labs approved by ICMR or NABL, laboratories in every district, and increase in ratio of testing.

"A couple of days ago, the state government approved our demand to allow MBBS doctors to prescribe Covid-19 testing. We are thankful to the government for the prompt action," Dr Desai said. Gujarat carries out three types of tests to find new cases — reverse transcription-polymerase chain reaction (RT-PCR), TrueNAT and CB-NAAT. Since July, Gujarat has also introduced rapid antigen (Ag) testing.

No labs in 19 districts

According to ICMR website, Gujarat has 41 labs for testing – 23 in government and 18 in private settings. Yet, there are 19 districts in the State which are yet to start Covid testing. "Such districts do not have laboratories with infrastructure and facilities that can fulfill the criteria of ICMR and NABL. However, the government is trying to improve the situation," said sources.

Currently, there are five private labs carrying out Covid tests in Surat. Of these, two received approval only on July 16. Dr Dhanji Rajanu, owner of Microcare Lab said, "The lab got ICMR permission two months ago but Gujarat government approved it only on July 16."

Similarly, Dr Hiren Dhanani of Sterling Accurix Diagnostics said, "We had got ICMR approval a week ago. However, the State gave its approval for Covid testing on July 16."

In May, AMA had filed a PIL in HC against State government's decision to prohibit private laboratories from conducting Covid-19 tests without getting approval from government health officials.

The Ahmedabad Medical Association (AMA) and Indian Medical Association's Gujarat chapter also demanded that prior permission from the government authority should not be mandatory to test asymptomatic doctors and health workers.

The health department then permitted testing of frontline workers without any recommendation. In June itself, Gujarat saw its Covid-19 testing policy revised twice, largely due to the scrutiny it came under before the Gujarat High Court. **(WITH INPUTS FROM BRE NDAN DA BHO)**

Testing on at Sanathal Chowkdi ANCELA JAMINDAR

"We have demanded more testing. If testing is increased, infection can be detected and cured, and in turn, contained

Dr Mona Desai, President of Ahmedabad Medical Assn

'Infections among doctors mean testing rules must be loosened'

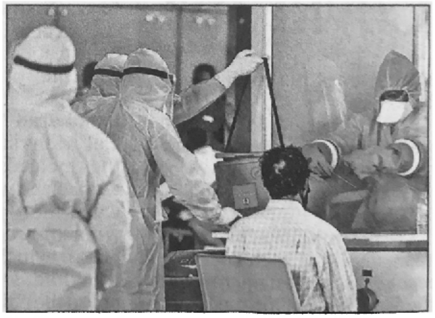
▶Continued from P1

Dr Mona Desai, president of Ahmedabad Medical Association (AMA), said that the number of private doctors who have got infected with Covid-19 could be upwards of 40. "We are in process of collating the names and details from different sources but we can say that at least 40 private doctors, apart from those infected at government hospitals, have tested positive," she said.

TOI reached out to several of them and found that while majority of the doctors indeed tested positive and were under treatment, a few had taken test and had tested negative.

Indian Medical Association (IMA) members said that it unfortunate that such a large number of doctors have tested positive despite taking all precaution such as wearing masks and PPEs.

Doctors said that high number of doctors falling prey to Covid-infection underscores the need for government to loosen control over Corona testing. "The issue of testing again comes up in light of the new cases. How would one know the source of infection? Did the doctor contract infection from a patient or from the environment? When the tests are not done in time and when the doctors must carry out medical procedures, they are likely to get infected," said a senior city-based surgeon. "One of the doctors testing positive is a young anaesthetist associated with several doctors. Even an intensive care specialist is admitted on Wednesday."



Testing in private labs: AMA files PIL

Plea filed in the high court says restriction on private labs for conducting Covid-19 tests without permission of govt health officials is putting lives of patients, doctors and medical staff at risk

Nikunj.Soni
@timesgroup.com
TWEETS @NikunjMIRROR

Ahmedabad Medical Association (AMA) has filed a PIL in the Gujarat High Court against the state government decision that prohibits private laboratories from conducting Covid-19 tests unless permission is granted by nodal health officials.

The PIL will be heard along with the suo motu plea on May 29.

Earlier on May 22, HC had directed government to allow private laboratories to carry out testing, however, it is yet to act on it. AMA President Dr Mona Desai told Mirror, "We have filed PIL as the government is yet to act on HC decision even after four days of order. We can't put ours and patients' lives in jeopardy. It will come up for hearing on Friday."

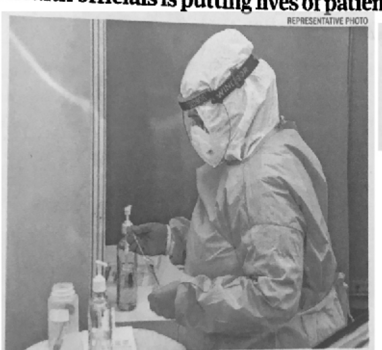
The AMA PIL said, "This is not only resulting in complications in patients, but also increasing their suffering and putting the entire medical fraternity at risk. On May 25, Dr Aditya Upadhyay, an orthopaedic surgeon, passed away at SVP Hospital. Dr Upadhyay had contracted the virus while operating upon a patient who was Covid-19 positive, which the doctor or the patient were not aware about as the patient could not be tested due to the restrictions in place."

It further said, "The situation is worsening with each passing day. The inaction of the government and its apathy towards the patients, citizens and the medical fraternity has left the association with only two alternatives: either to go on an indefinite strike or to approach this court. Going on strike, in the present situation, will do great disservice to patients and hence the plea."

The Indian Council of Medical Research (ICMR) has approved 17 private laboratories in Gujarat, including seven in Ahmedabad, to conduct Covid-19. As per the latest guidelines released on May 17, a doctor or a hospital shall take permission of government-nominated health officials to conduct a test on patient and priority will be given to the government laboratories. Earlier, private laboratories could out carry tests based on prescription of doctors and hospitals.

Earlier, the state government had opposed testing by private laboratories on the grounds that it may lead to 70% of the population testing positive which may lead to fear psychosis. However, the high court didn't accept it. "The argument that more number of tests that may lead to 70% of the population testing positive for Covid-19, thereby leading to fear psychosis, should not be a ground to refuse or restrict testing," the bench of Justices J B Pardiwala and I J Vora had said in the order on Saturday.

The court had said, "All private laboratories able to fulfil the prescribed criteria as regards the infrastructure must be granted permission to conduct the RT-PCR tests. Everyone must be permitted to get coronavirus tests done."



REPRESENTATIVE PHOTO

The PIL will be heard along with the suo motu plea on May 29

"We have filed the PIL as the government is yet to act on HC decision even after four days of the order. We can't put ours and patients' lives in jeopardy. It will be heard on Friday
-Mona Desai, president, Ahmedabad Medical Assn

AHMEDABAD MEDICO NEWS 27-07-2020 MONTHLY NEWS BULLETIN

City CORONAVIRUS OUTBREAK

Court comes to citizens' rescue

HC EASES TESTING NORMS, SAYS IT'S FUNDAMENTAL RIGHT

Patients requiring urgent procedure won't require permission to get tested for Covid-19; rest to be given nod within 24 hours

Ahmedabad Mirror Bureau
amfeedback@timesgroup.in
TWEETS @ahmedabadmirror

Citing the fundamental right of citizens to get tested and easing the restrictions put in place over Covid-19 tests, the Gujarat High Court, which was hearing the suo motu PIL on Covid-19 pandemic, raised pointed questions about the testing guidelines of the Gujarat government on Sunday.

Earlier, the Gujarat government had told the court that it was following ICMR guidelines while devising its guidelines under which testing had been drastically reduced. The HC has asked even the ICMR to submit a detailed report on its testing guidelines, while asking the state government why it cannot frame guidelines based on ICMR norms that benefit patients.

Easing the testing guidelines

The division bench of Chief Justice Vikram Nath and Justice J B Pardiwala, in its order on Sunday, said categories of persons requiring urgent services and critical care will not await approval of the superintendent of GMERS in Ahmedabad or District Health Officer in other districts for Covid-19 tests.

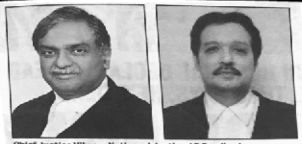
It said the tests will be carried out without delay and that only an intimation of the Covid-19 test has to be given to concerned authorities.

"Patients requiring urgent medical procedure or surgery will not be required to take permission. The doctor's request would be enough to get the test done. In other cases, permission will have to be given within 24 hours and not a minute more," it said.

It may be noted that Ahmedabad Medical Association, the umbrella body of doctors, had also filed a petition in the court challenging Gujarat government' testing policy and threatened to go on strike if they were not change.

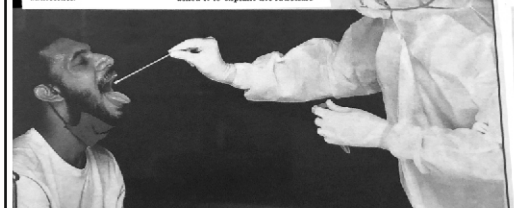
HC criticises ICMR

Criticising the ICMR guidelines that restrict testing, the court asked it to explain the rationale behind its guidelines, the approval given to private laboratories and their number, whether citizens can go and get tested on their own volition and most importantly if the guidelines issued by it are binding on state governments. The court asked the ICMR to file a detailed report on the questions raised by it.



Chief Justice Vikram Nath an d Justice J B Pardiwala

"Patients requiring urgent medical procedure will not be required to take permission. In other cases, permission will have to be given within 24 hours and not a minute more
–Gujarat HC bench, in its order on c Sunday



GTU, 'Ho mat tha
Hostel studen back t

Delay in approval for tests at pvt labs

Patient waits for 2-3 days for nod; surgeries, treatment affected: AMA

Ahmedabad Medical Association says delays in permission to get coronavirus tests done in private labs is impacting surgeries of patients

Nikunj.Soni
@timesgroup.com
TWEETS @NikunjMIRROR

Ahmedabad Medical Association (AMA), the umbrella organisation of modern medicine doctors, has urged the government to revoke its decision that makes it mandatory for hospitals to seek permission from nodal health officers for Covid tests in private labs. It has threatened to go on strike if the decision is not withdrawn, saying it is causing immense hardships to patients and hospital staff.

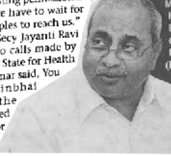
AMA President Dr Mona Desai said, "We and our patients are facing immense difficulties as we have to wait for two to three days to get permission to conduct coronavirus test of the patient admitted for surgery or other treatment. These patients can become potential super spreaders if they are found positive at a late stage." "Our appeals and requests to the state government have remained unheard and we are taking legal advice to resolve the issue. If the government doesn't pay heed to our request, we will have no option but to go on strike."

Earlier, the Ahmedabad Hospitals and Nursing Home Association had raised grievances against the policy as it delays the treatment of patients. Laboratory owners, on their part, remain tight-lipped fearing government action. With its May 17 guidelines in place, the testing has reduced to about 40 cases per day from 150-200 cases earlier at each of the private labs, said sources. An official at another private lab said, "Covid testing can be done only in batches. We test in batches of 26, 36, 46 samples by putting them together in our machines. However, as the testing permission is getting delayed, we have to wait for minimum 26 samples to reach us." Principal Health Secy Jayanti Ravi did not respond to calls made by Mirror. Minister of State for Health Kishor Kanani Kumar said, You should ask Nitinbhai (Patel) about the issue." Patel refused to speak to Mirror (see box on right)

DyCM NITIN PATEL SULKS, REFUSES TO TALK TO MIRROR

EVERY individual is entitled to their moods and whims, but during this critical time of coronavirus pandemic, Gujarat expects the State health minister to be responsive. Ahmedabad Mirror has evidence to prove that Deputy Chief Minister and Gujarat health minister Nitin Patel sulked and snapped, when he was asked for his comments on Gujarat High Court's observations on reduced testing in Gujarat as well as the Mirror investigation on the issue. Here is what transpired (the conversation was in Gujarati):

Mirror: Sir, this is .... speaking from Ahmedabad Mirror
DyCM Nitin Patel: From where?
Mirror: Ahmedabad Mirror
Patel: Hmm...
Mirror: The State government has moved an application before Gujarat High Court... Also the Gujarat High Court observed on testing...
Patel (interrupting the reporter mid-way): Have you published my yesterday's interview in the Ahmedabad Mirror? Of how I had gone to Civil hospital five times in 30 days. I gave an interview and you have not published it.
Mirror: No, I don't have an idea.
Patel: Then I don't want to talk.
(Bangs the phone)



DISCLAIMER

Opinions in the various articles are those of the authors and do not reflect the views of Ahmedabad Medical Association. The appearance of Advertisement is not a guarantee or endorsement of the product or the claims made for the product by the manufacturer.

City — CORONAVIRUS OUTBREAK

Now, get your Covid-19 test done for Rs 2,500 in pvt labs

After Guj govt slashed test rates, walk-in test rate is down from Rs 4,500 to Rs 2,500; pay Rs 3,000 if samples collected from home

FLASHBACK — Mirror report on June 24

PASSION & PROFESSION

અમદાવાદના ડૉક્ટરોએ કોવિડ-19 વચ્ચે આ રીતે ટકાવી રાખી તન-મનની તંદુરસ્તી

FOR BETTER OR WORSE.

22-3-2020 **પ્રતિબંધોનું છડેચોક ઉલ્લંઘન અને બેદરકારી સમગ્ર સમાજ માટે ઘાતક**

કોરોનાને વધતો અટકાવવો આપણાં સૌની ફરજ છે

નવગુજરાત સમય > અમદાવાદ **રવિવાર**

કોરોના એલર્ટ

ચીનમાંથી શરૂ થઈ વિશ્વના અનેક દેશોમાં હાહાકાર મચાવી હજારો લોકોના જીવ લેવાની સાથે કરોડો લોકોના જીવનમાં ઉત્પાત મચાવનાર કોરોના વાઈરસ હવે ગુજરાત રાજ્યમાં પણ દસ્તક દઈ ચૂક્યો છે જેના કારણે સરકારી તંત્ર પણ દિવસ-રાત જોયા વગર આ વાઈરસનો વધુ ફેલાવો રોકવા તથા અસરગ્રસ્ત લોકોને યોગ્ય સારવાર મળી રહે તે માટે કાર્ય કરી રહ્યું છે. આવા સંજોગોમાં અમદાવાદ શહેરના પ્રતિષ્ઠિત તબીબો આજની પરિસ્થિતિને કઈ રીતે જોઈ રહ્યાં છે તથા નાગરિકો માટે શું સંદેશ છે તે અહીં રજૂ કરવામાં આવ્યાં છે. આ વાઈરસ હજુ સ્ટેજ-2માં છે અને તેને સ્ટેજ-3 પર જતો અટકાવવો આપણાં સૌથી ફરજ છે.

પ્રતિષ્ઠિત તબીબોનો નાગરિકો માટે સંદેશ

પૂરવાર થાય તે પહેલાં કડક પગલાં ભરવા જોઈએ

તકેદારીની સરકારી સૂચનાની અવગણના કરનાર સામે કડક કાર્યવાહી આવશ્યક

હજુ આપણે સ્ટેજ-2 હેઠળ છીએ જો સ્ટેજ-3માં આવી ગયા તો પરિસ્થિતિને કાબૂમાં લેવી ખૂબ જ અઘરૂ થઈ જશે જેનું કારણ છે લોકોમાં જાગૃતિનો સંપૂર્ણ અભાવ. તાજેતરમાં જ અમદાવાદ મ્યુનિસિપલ કોર્પોરેશન દ્વારા અમૂક પ્રતિબંધો લાદવામાં આવ્યા છે છતાંય કેટલાંક એવા વિસ્તારો અને દુકાનદારો છે જે છડેચોક પ્રતિબંધોનું ઉલ્લંઘન કરી રહ્યાં છે. તેવી જ રીતે કોરેન્ટાઈનમાં રહેવાની સૂચના આપવામાં આવી હોય તેવા લોકો પણ બરાબર પાલન કરી રહ્યાં નથી. આવા લોકો સામે ખૂબ જ તાત્કાલિક અને કડક પગલાં લેવા જરૂરી છે. હોસ્પિટલ્સ દ્વારા પ્રતિબંધ છતાં એક દર્દી સાથે એક ના બદલે વધુ સંબંધીઓ રહેવાનો આગ્રહ રાખે છે. કહેવાનો અર્થ એ છે કે સરકારના અનેક પ્રયાસો છતાં જે લોકો આદેશોની અવગણના કરતાં હોય તેમની સામે કડક કાર્યવાહી ખૂબ જરૂરી બની છે.

- ડૉ મોના દેસાઈ, પ્રેસિડેન્ટ, અમદાવાદ મેડિકલ એસોસિયેશન

દિવ્ય ભાસ્કર, અમદાવાદ

અમદાવાદ મેડિકલ એસોસિએશનનો વિરોધ

દવાખાનાં નહીં ખોલનારા 280 ડૉક્ટરોને નોટિસ અપાતા રોષ

ડૉ. મોના દેસાઈ

‘અમે અમારી જવાબદારી જાણીએ છીએ’

17-3-20 દિવ્યભાસ્કર

દિવ્ય ભાસ્કરની પહેલ: અફવાઓથી ડરો નહીં, આ મેડિકલ હેલ્પલાઈનમાં ફોન કરો

જાણીતા 5 ડૉક્ટર બપોરે 1થી 4માં નિ:શુલ્ક સલાહ આપશે

ડૉ. મોના દેસાઈ	ડૉ. નરેન્દ્ર રાવલ	ડૉ. પ્રવીણ ગર્ગ	ડૉ. પલ્લવ દેસાઈ	ડૉ. ધીરેન મહેતા
મો. 9825016769	મો. 9825051046	079-27417979	મો. 8320909602	મો. 9898354158

AMA પોલીસને વિનામૂલ્યે સારવાર આપશે

16-5-2020

ભાસ્કર ન્યૂઝ | અમદાવાદ

લોકડાઉનમાં ફરજ બજાવતા પોલીસ જવાનોની વિનામૂલ્યે સારવાર કરવા મદદ મગાઈ છે. ક્રાઈમ બ્રાન્ચના અધિકારી અજય તોમરે પોલીસ જવાનોની સારવારની રજૂઆત કરી હતી, જેને લઈ અમદાવાદ મેડિકલ એસોસિએશનને 21 ડૉક્ટરની ટીમ બનાવી છે. આ ઉપરાંત અમદાવાદની 191 જેટલી હોસ્પિટલની યાદી પોલીસને અપાઈ છે. એએમએના પ્રેસિડેન્ટ ડૉ. મોના દેસાઈએ કહ્યું કે, ડૉક્ટરનું એસોસિયેશન દર વખતે પોલીસ જવાનોને મદદમાં આગળ હોય છે.

REPORT OF WEBINAR NO.-1 OF AHMEDABAD MEDICAL ASSOCIATION- 30/06/2020

A very interesting Webinar was organised by Ahmedabad Medical Association in association with MMA for the very first time on 30th June-2020 at 9:00 pm. The esteemed speaker for this Webinar was **Pujya Gyanvatsal Swamiji** . He spoke on the topic - " DOCTORS -ANGELS ON EARTH ". As always being an excellent orator he talked highly of Doctors doing their duties in this tough times of COVID-19 Pandemic and inspired all by comparing Doctors on duty -to -next to God . It was very well attended.

REPORT OF WEBINAR NO.-2 OF AHMEDABAD MEDICAL ASSOCIATION- 01/07/2020

As 1st of July being the 'DOCTORS DAY ' we celebrated it in a unique way. As no gathering was allowed in this COVID-19 Pandemic , we kept two very interesting talks in the evening from 8:00 pm onwards. Dr. Mona Desai - President AMA welcomed everyone and wished all Doctors- 'HAPPY DOCTORS DAY ' . Then she introduced the first Speaker- **Dr. Atul Patel**- I.D.Specialist. His topic was :- Treatment of COVID-19 infection. He explained the whole treatment protocol in a very simple way and to the point. He also discussed DOs and DON'Ts in the treatment of CORONA VIRUS Treatment. Our second speaker was a very well known Motivational Speaker- **Mr. Jay Vasavda**. He indeed gave a very inspirational talk to the doctors in this trying times when sometimes Morale of the doctors is very low. He encouraged us and his talk rejuvenated the morale and a new inflow of energy was instilled in us. The Webinar ended with Vote of thanks from our Hon. Sec. Dr. Dhiren Mehta.

We have now decided to have such useful Webinars every month so kindly join and **check regularly our Ahmedabad Medical Association website and Face Book page for information.**

RATES FOR ADVERTISEMENT IN AMA BULLETIN

WITH EFFECT FROM 5-6-2013

PARTICULARS	AMA MEMBER	GROUP MEMBER	NON MEMBER CORPORATE HOSP.
Last Cover Page (Colour)	Rs. 10000	Rs. 11000	Rs. 12000
Inside Cover Page Total 4 in (Colour)	Rs. 8000	Rs. 9000	Rs. 10000
Center Page - the Rates are per page (Colour)	Rs. 8000	Rs. 9000	Rs. 10000
Full Page Colour	Rs. 5500	Rs. 7000	Rs. 9000
Full Page Black & White	Rs. 3000	Rs. 6000	Rs. 8000
Half Page B/W.	Rs. 2000	Rs. 4000	Rs. 6000
Quarter Page B/W.	Rs. 1000	Rs. 1500	Rs. 2000

(Minimum rates, in case of more then one proposal higher one will be considered)

Size of Bulletin

Full Page 18x12 cm **Half Page 9x12 cm** **Qtr. Page 9x6 cm**

Note :

- For One year Advertisement 15% Discount
- For Six Month Advertisement 10% Discount
- Please Send your Advertisement in CDR / JPG Format only at AMA before the Date.
- Please Send your Advertisement Before Dt. of 15th each Month.

Understanding Treatment of Covid-19

Dr Atul K Patel MD, FIDSA
Dr Ketan Patel MD
Infectious Diseases Consultants
Vedanta Institute of Medical Sciences
Navarangpura, Ahmedabad - 380009.

India has now more than a million cases of Covid-19. Variety of repurposed medicines with potential antiviral effects has been tried for the treatment without much survival benefit.

Approximately 80% of Covid-19 patients have mild or asymptomatic illness and recovers without medical interventions. Remaining 20% patients can have moderate to severe illness and requires hospital care of which 3-5% patients may require ICU care. This means that a large number of patients don't requires active medical intervention and only 20% requires medical support to reduce morbidity and mortality.

So far following five interventions found to be associated withsurvival benefit in Covid-19 patients who requires hospitalization for their moderate to severe illness.

1. **Oxygen therapy :** Patients with moderate to severe Covid-19 develops respiratory failure with hypoxemia and supplemental oxygen therapy is lifesaving. Hypoxic Covid-19 patients should receive adequate oxygen therapyaccording to severity, from nasal prongs, non-rebreathing mask (NRBM), High Flow Nasal Canula (HFNC). HFNC oxygen therapyis preferred over noninvasive positive pressure ventilation (NIPPV)and it's use can be associated with reduce the need for invasive ventilation in many patients and life can be saved. Meta-analysis from studies in patients with ARDS showed a decreased need for intubation (odds ratio [OR] 0.48; 95% CI, 0.31–0.73) and ICU mortality (OR 0.36; 95% CI, 0.20–0.63) with HFNC than with NIPPV.[1]

2. **Prone positioning :** Patients with moderate-to-severe acute respiratory distress syndrome (ARDS) requiring mechanical ventilator, prone positioning improves oxygenation and patient outcomes.[2] Prone positioning is helpful to improve oxygenation as it improves ventilation-perfusion matching and recruits collapsed alveoli in the dorsal lungs.Case series reported improvement in oxygenation with awake prone positioning in patients with COVID-19 pneumonia who required supplemental oxygen. One series reported need for intubation is < 1% when awake prone treatment strategy is used in Covid-19 pneumonia requiring oxygen therapy.[3] Similarly multiple published study reported benefit with prone positioning in patients on HFNC, NIPPV.
3. **Anticoagulation therapy :** Covid-19 infection is associated with inflammation and a prothrombotic state, with increases in serum fibrin, fibrin degradation products, serum fibrinogen, and D-dimers. this makes patients at a higher risk of microvascular and macrovascular thrombosis. Anticoagulants/antiplatelets are important and lifesaving component of Covid-19 treatment. All hospitalized patients should receive prophylactic dose of Low Molecular weight Heparin (LMWH) while patients with D-dimer > 1000ng/ml or rapidly rising D-dimer, or ECG/ ECHO showing RA/RV strain, pulmonary arterial hypertension should receive therapeutic dose of LMWH. Autopsy study from New York reported platelet fibrin thrombi in small vessels along with marked increase in platelets in organs and bone marrow. This presence of white thrombus in capillaries in autopsy study suggest a potential role of

antiplatelets in Covid-19 treatment. Though, aspirin and clopidogrel are not studied in proper clinical trials, one may use antiplatelets along with anticoagulant therapy in the treatment of Covid-19 patients with moderate to severe illness with raised D-dimer. Patient should continue to receive anticoagulants/antiplatelets for 2 to 6 weeks after discharge. Duration of post discharge treatment depends upon severity of microvascular thrombosis as judge by peak D-dimer levels. Patients with macrovascular thrombosis, deep venous thrombosis should continue to receive anticoagulants as per current guideline. Oral agents like apixaban, rivaroxaban or similar can be used at the time of discharge.

4. **Corticosteroids :** Corticosteroids are found to be associated reduced mortality in Covid-19 patients with hypoxia, requiring oxygen therapy. Dexamethasone oral or intravenous, at a dose of 6 mg per day for up to 10 days showed survival benefit in the treatment of COVID-19 in patients who are mechanically ventilated and in patients who require supplemental oxygen but who are not mechanically ventilated[4]. Another study using short course methylprednisolone in a dose of 0.5 to 1mg/kg per day for 3 days and in ICU patients up to 7 days showed similar survival benefit only on patients who requires oxygen therapy[5].

5. **Tocilizumab :** IL-6 receptor blocker, potent anti-inflammatory agent approved for the treatment of CAR T therapy associated cytokine release storm. Patients with inadequate response or disease progression to steroids at 24-48 hours are candidate for Tocilizumab. Clinicians are encouraged to take a help from laboratory markers of hyperinflammation/cytokine release storm like CRP > 10 X ULN, or rise in CRP 2X

in 24 hours or D-Dimer > 2500ng/ml, or ferritin > 500ng/ml. Single dose of Tocilizumab in slow infusion is adequate for majority of Covid-19 patients with CRS.

Place of Antiviral therapy in the treatment of Covid-19

Hydroxychloroquine: In multiple studies from different countries, HCQ failed to provide benefit as a pre-exposure prophylaxis, post exposure prophylaxis, in the treatment of moderate and severe Covid -19 disease, another study in treatment of mild disease from Spain, HCQ fail to decrease disease progression and also no significant reduction in SARS CoV-2 viral load at day 7.

Favipiravir: Repurposed medicine, approved for treatment of Influenza in Japan. No robust data available for the treatment of Covid-19 with favipiravir. At present, this drug can be placed as an OPD based therapy of patients with mild infection with risk factors for disease progressions like elderly, male gender, diabetes, hypertension, obesity, ischemic heart disease etc

Remdesivir: This repurposed medicine received an emergency authorization for the treatment of patients with moderate to severe Covid-19 diseases. Published literature didn't show survival benefit with the use of this drug, but it reduces the hospitalization duration by 4 days.

Convalescent plasma (CP): CP containing adequate neutralizing antibody titers are useful in the treatment of patients with moderate covid-19 pneumonia. CP shouldn't be used for the treatment of critically ill Covid patients, patients on mechanical ventilator.

Other agents like lopinavir/ritonavir, doxycycline, Ivermectin, Azithromycin have no clinical outcome data to support their use in the treatment of Covid-19 and hence it should be avoided for the treatment of Covid-19 except in clinical trial settings.

An Ardent Appeal

From Kangaroo Mother Care Foundation

For the continuation of Kangaroo Mother Care and Breast Feeding during the pandemic of COVID 19 in India

Compiled by : **Dr. Shashiben Vani**
M.D., Pediatric

Background:

- During current difficult times of COVID 19 pandemic, babies continue to be delivered and more births are expected in near future.
- Pregnant women, apparently, are not more prone for COVID 19 infection than other healthy persons. COVID 19 infection in a pregnant woman is not a special indication for delivery by Caesarean Section.
- COVID threat is not likely to disappear in coming few months or even a few years.
- Currently, a lot of fears, conflicts and confusions are prevailing regarding promotion of direct skin to skin contact, Kangaroo Mother Care and Breast feeding for a baby born to a woman whose status of COVID 19 test is positive or suspected. Newborn babies are being separated from mothers without valid justifications

Disclaimer:

- Guidelines may change depending on the emerging fresh information or data.
- Final decision (to practice Kangaroo Mother Care or not and to give breast feeding or not) is with mother. We can only counsel and guide a mother preferably with her family members.

Recommendations

- **Benefits of breast feeding outweigh the risks of COVID 19 infection to newborns and their mothers**

  It should be promoted as early as possible either as direct breast feeding or as expressed breast milk. Mother should observe suitable precautions like respiratory hygiene, hand hygiene including proper hand washing before and after feeding and touching any surfaces and cleaning surfaces and other measures of infection prevention and control of COVID 19 infection.

- **Early skin to skin contact between mother and her freshly born baby should be promoted in all possible cases,** soon after birth excepting those neonates who require resuscitation or any other immediate lifesaving interventions. Mother and the baby should not have the pangs and pains of separation.

- **A loving hug in the form of prolonged skin to skin contact /Kangaroo Mother Care including Breast milk feeding should be particularly offered for pre term and low birth weight babies** as per the

guidelines and followed by planned early discharge and regular scheduled follow up for monitoring growth, immunizations and neuro development of the infant. It helps not only in the facilities but also for continued care at home by mothers with competence and confidence leading to better neonatal outcome in terms of physical and mental wellbeing (Good nurture and thriving)

■ **Fear of COVID 19 transmission to baby while breast feeding and being in close contact:**

- Chances of vertical transmission of virus through breast milk appear much less as no documented reports available so far through amniotic fluid. Placenta or breast milk.
- Very few newborns get COVID 19 infection from mother. The mode of transmission is likely to be horizontal contact from either mother or the birth attendants and other health care providers who may be handling the newborn.
- Even when the COVID 19 infection does transmit from mother to newborn, it has been found that very few get the infection.
- Neonatal COVID 19 infection is mostly non symptomatic or causes mild illness which is manageable. Serious illness is very rarely reported.

■ **Why promote breast feeding?**

- Breast milk samples from mother after first lactation

are negative for virus

- Recent few reports have documented presence of COVID 19 antibodies and immunoglobulins in mother's milk which may even offer protection to babies who are feeding on breast milk of COVID 19 positive mothers
- It appears acceptable on similar analogy of other viral infections like HIV, EBOLA and others.
- Breast milk is not only good, but also lifesaving, particularly in the context of COVID 19 pandemic situation due to several advantages.
- Separation interferes with early initiation of breast milk supply and leads to subsequent feeding problems depriving several benefits to baby including specific immune protection.
- Disrupts neonatal physiology - Higher Heart rate, Respiratory rate, low blood glucose levels etc.
- Increases mental stress for mother as well as baby and often aggravates post -partum depression in mothers leading to adverse immediate and long term consequences.
- Immediate skin to skin contact soon after birth is important for the colonization of the infant microbiome.
- Mother baby separation/isolation doubles the burden on health system.

■ **Why promote Kangaroo Mother Care?**

Kangaroo Mother Care is not just skin to skin contact on mother's chest for a few minutes. It includes prolonged skin to skin to contact on mother's chest(Minimum of continuous one hour during each session of direct skin to skin contact) and also includes promotion of breast milk feeding (Direct breast feeding or as expressed breast milk feeding) , planned early discharge combined with regular scheduled follow up for monitoring physical growth and development, Immunizations and special follow up for neuromotor, neuro sensory and behavioural development of a baby in a supportive environment in hospital and continued at home till the baby leaves skin to skin contact around 40 weeks of gestation or when the baby's weight is around 2500 grams. It is particularly useful for Low birth weight babies less than 2000 grams and pre term babies. It is a comprehensive method of care with several benefits.

■ **What to do in different situations:**

a) **Mothers coming from general population/COVID 19 status not known/ No contacts /asymptomatic**

b) **Mothers from families with COVID 19 positive contact / mother's status not known / Asymptomatic**

c) **Mother Covid 19 positive and asymptomatic or mildly sick**

In all these situations delivery should be conducted with

due IPC precautions.

Immediately after birth, irrespective of gestation, except those requiring urgent resuscitation or any other lifesaving intervention, the baby should be put on direct skin to skin contact on mother's abdomen as early as possible and then after delayed cord cutting and quick drying shifted on mother's chest for continued direct skin to skin contact and promote breast crawl and early initiation of breast feeding within one hour of birth for all term babies and near term babies.

For all babies and particularly for low birth weight and pre term babies who have no serious complications continue prolonged skin to skin contact as Kangaroo Mother Care with efforts to promote exclusive breast milk feeding either as direct breast feeding or as expressed milk feeding. The babies should be maintained in continuous kangaroo position for not less than one hour in each session.

d) **Mother COVID 19 positive and having serious illness**

Baby should be given expressed breast milk from mother with special precautions. Manual expression can be tried. In case a manual or electric pump is used for collection of expressed breast milk additional precautions to separate all the parts which have come in contact with breast milk and wash all the parts with soap and water carefully and other guidelines for cleaning must be observed. Care must be taken for collection, storage and administration of the EBM with

all aseptic precautions and method of feeding can be decided as per the maturity of the newborn and capacity of taking milk with coordination of breathing, sucking and swallowing. (Cup feeding, spoon feeding or paladai feeding)

e) **Mother COVID 19 positive and critically ill**

EBM may not be possible. In order of preference following options may be tried:

- Donor human milk from breast milk bank
- Individual Human donor milk from a known healthy, willing mother
- Preterm milk formula if available
- Formula milk
- Animal milk from pasteurised dairy milk with

Summary

- Weighing the risks of COVID 19 transmission to the baby and several benefits of these interventions, nonseparation / zero separation of baby from mother and direct skin to skin contact of baby on mother's chest, early and exclusive breast feeding as per the guidelines of Infant and Young Child Feeding and Kangaroo Mother Care particularly to babies who are low birth weight including preterm, must be promoted as per the local guidelines and policies.

FAQs on Tocilizumab usage in Covid-19 Patients

By **Dr. Atul Patel** MD, FIDSA

1. When clinician should consider Tocilizumab to Covid-19 patients?

Ans: Clinician should consider Tocilizumab in a Covid-19 patient who has moderate to severe illness with hypoxia requiring oxygen therapy elevated CRP (> 10 X upper level normal or more than two times increase in 24 hours) or D-dimer (> 2500 ng/ml) or serum ferritin (>500 ng/ml) with worsening hypoxia despite 24-48 hours of corticosteroids and supportive care.

2. Should all Covid-19 patients receive Tocilizumab?

Ans: No, all patients diagnosed with Covid-19 don't require Tocilizumab.

3. Why we are not recommending Tocilizumab to all Covid-19 patients?

Ans: Tocilizumab is a monoclonal antibody against IL-6 receptors. It is a potent anti- inflammatory and immunosuppressive agent. Package insert of Tocilizumab has a black box warning about risk of serious infections including bacterial, mycobacterial and viral following Tocilizumab. Like steroids and other immunosuppressive agents, Tocilizumab can lead to persistent viral replication and prolonged viral shedding. Because of the risk of serious infection and prolonged viral shedding, Tocilizumab should not be used in all Covid-19 patients.

4. I don't see improvement in my patients, who has a static or worsening oxygen requirement after Tocilizumab.

Ans: Tocilizumab will prevent hyper inflammation associated organ damage and dysfunction and can't have effect on already existing lung injury. Lung recovery takes its usual course to improve. Persistent breathlessness after Tocilizumab requires further evaluation of patients for pulmonary intravascular coagulopathy, cardiac dysfunctions, secondary bacterial infection etc. and should be treated accordingly.

5. Should I consider a second dose of Tocilizumab?

Ans: Covid patients with moderate to severe illness may requires Tocilizumab with elevated inflammatory markers in appropriate clinical context despite 24-48 hours of corticosteroids and supportive care. Such patients can be successfully treated with only one dose of Tocilizumab.

6. What are the important side effects with Tocilizumab?

Ans: Anaphylaxis with infusion, transaminitis, leucopenia and neutropenia. Risk of serious bacterial infections, viral infections and reactivation of TB

7. What are the contraindications for Tocilizumab therapy?

Ans: Tocilizumab is contraindicated in patients with active infection (bacterial, TB, Viral), transaminitis with SGPT/SGOT > 5X ULN, Platelet count < 50,000, Absolute neutrophils < 1000, pregnancy and breast feeding.

8. My patient's pre-treatment IL-6 level was 94ng/ml now jump to 1000ng/ml after Tocilizumab. Does this mean that patients had severe cytokine storm and needs additional dosage of Tocilizumab?

Ans: This rise in IL-6 level is due to effective IL-6 receptor blockage by Tocilizumab and this doesn't warrant additional dosage with Tocilizumab.

9. Can I use Tocilizumab prophylactically in anticipation of cytokine release storm?

Ans: No, one should not use prophylactic Tocilizumab as very few patients will head to cytokine release storm and majority of them will responds to a short course of steroid therapy. Very few patients who had inadequate response to steroids needs augmentation in their anti-inflammatory treatment with Tocilizumab.

10. Do I need to continue steroids after Tocilizumab?

Ans: Steroids can be safely discontinued after Tocilizumab as now we have enhanced anti-inflammatory effect by a more potent agent. Only small numbers of patients, who has features of alveolitis as marked by GGOs on CT scan with raised LDH level may require low dose steroids to reduces alveolitis to improve oxygenation.

Ischemic stroke

Padmashri Dr Sudhir Shah MD,DM (Neuro)
Dr Heli Shah MD,DM (Neuro)

Pearls of Wisdom:

- Stroke literally means being suddenly stricken. In common terms, it means sudden loss of function of a part of body due to disturbance of cerebral function of vascular origin.
- High blood pressure, high cholesterol levels, diabetes, and structural heart diseases along with smoking (or use of tobacco) and lack of exercise are modifiable risk factors for stroke.
- About 80–85% cases of strokes occur due to thrombosis or embolism and remaining are caused by hemorrhage. Out of all, 25% cases are attributed to small vessel disease. During an ongoing attack of untreated ischemia, approximately 32,000 cells die at every second.
- To minimize the damage to these neurons, an affected patient must be taken to hospital and treatment should be started within first 3-4.5 hours of stroke onset. The earlier, the better it is !
- Along with early thrombolysis, other medications and treatments, such as antithrombotic agents, neuroprotective medications, neurosurgery (as & when needed) and physiotherapy provide beneficial results.
- TIA is a warning sign and a risk factor for subsequent stroke and/ or heart disease.
- Although stroke is a leading cause of death and disability, it is largely preventable and treatable

INTRODUCTION

When a blood vessel supplying blood to the brain develops blockages (due to clots or fat deposits), blood flow through it is either obstructed or reduced. This results in a condition called ischemia . The consequence of ischemia is the death of brain cells which is called stroke.

The World Health Organization defines stroke as "rapidly developing clinical signs of focal (or global) disturbance of cerebral function with symptoms lasting 24 hours or longer or leading to death with no apparent cause other than of vascular origin." Ischemic stroke comprise of almost 80-85% of all strokes whereas 20-25% of strokes are due to hemorrhage in brain.

EFFECTS OF ISCHEMIC STROKE

Thrombotic or embolic events in the two carotid arteries result in anterior circulation strokes. Ischemia due to blockages in vertebral and basilar arteries results in posterior circulation strokes. Embolism refers to a clot travelling from some distant site, like the heart or large blood vessel, to smaller arteries supplying the brain. The resulting obstruction to blood flow can lead to ischemic events The signs and symptoms of stroke presented by a patient depend on the affected blood vessel and the ischemic injury in the corresponding brain region.

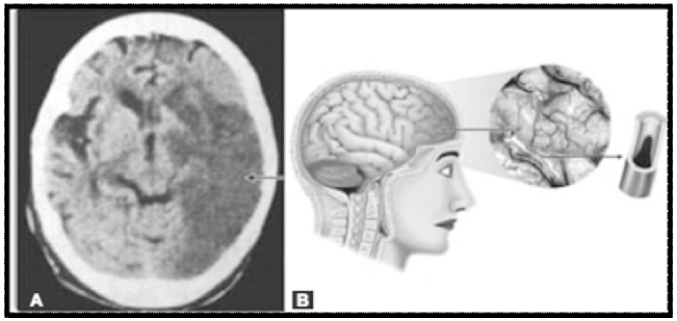


FIG. 1: **A,** Computed tomography of brain showing ischemic stroke and **B,** schematic diagram of a patient with ischemic stroke showing a clot compromising blood supply to an area of the brain

Loss of strength and/or coordination in one or more limbs is a common presentation in patients with stroke. Left-hemispheric strokes generally present with weakness on the right side of the body (right-sided hemiplegia) along with language impairment and disturbance of cognitive functions (reasoning, memory, and attention).Strokes involving language areas of the left cerebral hemisphere lead to language abnormalities and speech problems (aphasia) in nearly all right-handed patients and almost 80% of left-handed individuals.

Right-hemispheric strokes cause left-sided weakness and the left side of the body is neglected in addition. These symptoms are typically seen in a patient with anterior circulation stroke caused by blockages in the carotid arteries.

Posterior circulation stroke results from the involvement of vertebro basilar arteries and affects the brainstem, cerebellum, and occipital lobes (back of our brain). Depending on the level of brain-stem involvement, patients may present with double vision (diplopia), facial weakness, difficulties in swallowing (dysphagia), difficulties in articulation of speech (dysarthria), ataxia, and hemiplegia. Lesions in the cerebellum result in problems with posture, gait, dizziness, and coordination. The visual cortex in the occipital lobe is supplied by posterior cerebral artery (PCA). Patients with occlusion of PCA of one side have a condition called homonymous hemianopia (vision loss on the left or right side of the vertical midline) on the opposite side of lesion.

TRANSIENT ISCHEMIC ATTACK (TIA)

TIA is a condition caused by temporary cerebral ischemia (decreased blood flow) that completely resolves in less than 24 hours without any infarction (tissue death). The symptoms of TIA generally last only for few minutes and in

most cases, become normal in about 30–60 minutes. Often, the transient nature of the symptoms leads to patients dismissing the condition. However, TIA presents a golden opportunity to identify and intervene to avert impending stroke or even heart attack.

Clinically TIA can present as one or more of symptoms : transient weakness of one or both sides of the body, feeling of numbness in the limbs, face, momentary vision loss in one or both eyes, double vision or blurred vision, dizziness and loss of balance, transient speech difficulty or in coordination of the limbs or imbalance while walking. Therefore, if you suspect a TIA, please ensure that the patient sees a doctor immediately and gets properly evaluated.

STROKE MIMICS

In the treatment and management of stroke, it is important to differentiate conditions that resemble stroke (stroke mimics) to avoid the unnecessary healthcare and cost burden associated with wrong diagnosis. Some of the commonly encountered stroke mimics in clinical practice include hypertensive encephalopathy, hemiplegic migraine, Todd's paralysis (weakness after a convulsion) , hypoglycemia (low blood sugar) and hysteria. They all can present with weakness of a side of the body or similar such symptoms.

DIAGNOSIS AND ASSESSMENT

Key points of emphasis for stroke diagnosis in the Indian setting must include the realization that the required diagnostic tests are decided by an experienced physician or a neurologist and that quick referrals to facilities that are well-equipped in stroke management are crucial for a successful outcome. This theme is reflected in the concept of "Time is brain".

A number of diagnostic tests must be done to identify the cause, location, and extent of the stroke. The purpose of

carrying out a CT scan in the first few hours of occurrence of stroke is to find out whether the patient has an ischemic stroke or a hemorrhagic stroke. Once hemorrhage is ruled out, treatment of thrombosis can be immediately started, usually on the basis of plain CT scan. Hematological tests along with biochemical tests for blood sugar, lipids, kidney function are necessary components in the diagnostic workup of stroke.

Strokes can be due to embolism from a distant source like heart, atheroma from aorta or large vessels in neck. The valvular, ischemic, and congenital heart diseases and rhythm abnormalities (atrial fibrillation) are major causes of heart related embolism. 2D- Echo along with CT angiography and CT perfusion scans may be needed for assessment of heart disease. The extent of damage to the blood vessels (narrowing) can be ascertained by carotid and vertebral doppler scan or magnetic resonance angiography (MRA) [for more precision, digital subtraction angiography (DSA) or CT angiography may be required]. Transcranial Doppler can be used to evaluate the dynamics of intracerebral circulation.

Other reasons for stroke are hematological and coagulation conditions of blood, where blood (abnormalities of red and white blood cells, platelets, or plasma proteins) becomes thicker hence, have tendencies to clot in vessels or bleed. If the arteries or vessels providing blood to the brain are abnormal due to a congenital condition, infection, or inflammation of their walls, then this condition is called vasculopathy or arteriopathy, and these also predispose to stroke. When the arterial wall is dissected, after trauma (sometimes even minor), we call it as arterial dissection and that is also not an uncommon cause of stroke. In young patients, tests, such as anticardiolipin antibody, lupus anticoagulant, tests for hypercoagulable states, collagen vascular disease, and homocysteine level, are carried out.

Therefore, investigations should focus on all these conditions and they must be carefully ruled out.

Modifiable and Non modifiable risk factors for stroke

Nonmodifiable risk factors

- Age
- Ethnicity
- Gender
- Family History

- **Modifiable risk factors**
- Hypertension (increased blood pressure)
- Previous stroke or transient ischemic attack
- Smoking, tobacco chewing
- Dyslipidemia (abnormally high lipid levels)
- Diabetes Mellitus
- Sedentary lifestyle and lack of exercise
- Obesity and metabolic syndrome
- Embolic cardiac causes (atrial fibrillation,Rheumatic heart disease, myocardial infarction, cardiomyopathy, prosthetic valve)
- Abnormal blood conditions (polycythemia, etc.) and clotting abnormalities
- Carotid artery occlusion (narrowing)
- Stress and depression
- Excessive alcohol use
- Hyperhomocysteinemia (raised levels of an amino acid called homocysteine)
- Substance abuse (e.g., cocaine)
- Shearing stress producing tear of inner arterial wall (dissection)
- Oral contraceptive pills, pregnancy, and sex hormones
- Medical disorders like collagen diseases, cancer, etc.

- Migraine

PREVENTION OF STROKE

While age, gender, ethnicity, and a family history of stroke are non modifiable risk factors, their effects can be minimized by controlling modifiable risk factors. Addressing modifiable risk factors in risk prone individuals is important for both primary (preventing the first occurrence of stroke) and secondary prevention (preventing a recurrence) of stroke. Action points required for modification of risk factors associated with hypertension, tobacco use, diabetes, lifestyle, and diet are vital for stroke prevention. Periodic and regular screening for risk factors and aggressively applying risk mitigating strategies are important aspects of stroke prevention. It is always better to prevent than cure.

TREATMENT OF STROKE

"Time is brain" and time to seek a neurologist's help from the onset of symptoms must be as short as possible. it must be noted that most of the life saving treatments are effective only when treatment is initiated within a few hours of symptom onset.

The slogan for any suspected stroke patient is "**BE-FAST**". Wherein "B" stands for balance problem of acute onset, "E" stands for eye problem of sudden onset i.e. vision loss in one eye or double vision, "F" stands for facial asymmetry on observing the patient, "A" stands for arm or limb swing (drop), on asking the patient to raise both hands, there is arm drop on the affected side due to stroke."S" stands for any speech abnormality and "T" stands obviously for time to act fast.

Six important facets of stroke treatment are:

1. **Thrombolytic therapy**
2. **Antithrombotic therapy**
3. **Neuroprotective therapy**

4. **Therapy for complications**
5. **Neurosurgery**
6. **Supportive therapy**

✓ **Thrombolytic Therapy**

Thrombolytic (breaking a blood clot) therapy comprises the foremost of the six main treatment avenues for a patient with stroke of a few hours. It is well established that initiation of thrombolytic therapy within 4.5 hrs (best within 3 h) of symptom onset can save a patient largely from the ischemic ill effects of thromboembolism and earliest is the best.

It helps by reperfusion mechanism and it salvages neurons in ischemic penumbra. Ischemic penumbra word denotes an area of ischemia where neurons are suffering due to lack of blood supply. Hence, are not receiving adequate oxygen and sugar, but are still not dead and can be salvaged. By reperfusion, the blood flow gets re established as vessel now opens up.

For eligible patients with acute ischemic stroke, intravenous alteplase is first line therapy provided treatment is initiated within 4.5 hours of symptom onset or the time last known to be well. Because the benefit of alteplase is time dependent, it is critical to treat patients as quickly as possible. If an eligible patient presents within first 3 hours of symptom onset then tenectepase, drug which can be given as a bolus has been approved by DCGI is also an option of intravenous thrombolysis for the patient. It is better to give the drug as early as possible once a hemorrhage has been ruled out on a CT scan or magnetic resonance imaging (MRI) and also rapid exclusion of stroke mimics . The only important urgent test is random blood

sugar examination. If extremes of sugar levels are not excluded (e.g., if blood sugar is 50 mg/dL or less), we should not give the drug and treat hypoglycemia first, as mostly hypoglycemia is the cause of neurological deficit here. If BP is higher than 185/110 mmHg, one should wait and try to bring it down slowly and carefully with drugs to a level below 185/110 mmHg. If the patient is already on oral anticoagulants, then PT with INR should be within acceptable limits before intravenous thrombolysis.

Mechanical thrombectomy is indicated for patients with acute ischemic stroke due to a large vessel occlusion in the anterior circulation who can be treated within 24 hours of symptom onset or the time last known to be well at well equipped stroke centres. In well-equipped settings, clots can be pulled out or dissolved by mechanical devices such as or solitaire stent, sapphire , revive, or trevo Ultrasound guided thrombolysis (Sonothrombolysis) and lasers are also being used by some, but are yet to gain widespread acceptance among neurologists.

Intra-arterial (within the artery) thrombolysis involves injection of rt-PA, (urokinase) directly into the site of thrombosis in the carotid or vertebral artery within 6 hours of symptom onset (sometimes upto 24 h) of stroke. This method is complex and requires an expert team as well as facilities for angiography. Both these techniques can sometimes be simultaneously used in a paradigm known as bridging, where intravenous thrombolysis is administered within 4.5 hours (at a local facility) followed by intra-arterial thrombolysis within 6–8 hours at a well-equipped centre, if intravenous thrombolysis alone has not proved to be effective. This often happens in large artery strokes.

While both, intra-arterial and intravenous thrombolysis, are extremely potent and lifesaving treatment options, they work only when administered within the first few hours of stroke onset as mentioned earlier.

✓ **Antithrombotic Therapy**

Antithrombotic (drugs that prevent blood clotting) therapy is commonly available in India.It includes the use of anticoagulant drugs, like heparin and low molecular weight heparin, as well as antiplatelet drugs, like aspirin, dipyridamole, clopidogrel, and abciximab. These agents halt the progression of ongoing clot formation and are helpful in preventing the recurrence of stroke (secondary prevention). They are not given for the first 24 hours if the patient has received thrombolytic therapy, otherwise they can be started immediately. Aspirin is a very effective drug for secondary prevention of stroke, but in cases of resistance or hypersensitivity to aspirin, clopidogrel is the agent of choice. Anticoagulant therapy, with low molecular weight heparin or oral anti coagulants such as warfarin, is indicated for cardioembolic strokes. Newer oral anticoagulants (NOAC) for cardioembolic strokes include dabigatran, rivaroxaban, apixaban, and edoxaban. These agents have lesser hemorrhagic side effects and unlike warfarin, they do not require regular monitoring of PT.

✓ **Neuroprotective Therapy**

After an ischemic insult, neurons do not survive beyond 6 hours. However, in the first 6–24 hours after stroke onset, some drugs can possibly avert metabolic disturbances and cell wall disruptions. These drugs act as potent antioxidants and also scavenge free radicals, protecting against oxidative stress, and neuronal apoptosis. However, the clinical efficacy

of a number of such drugs, including nimodipine, edaravone, citicoline, piracetam, has been limited despite encouraging experimental results in animal studies. Drugs, such as citicoline and edaravone, are often used in clinical practice.

Therapy for Complications

A number of complications may be faced during and after a stroke which can aggravate the severity of stroke. Proper nutrition and hydration, care to prevent bedsores (frequent change of position), prophylaxis for deep vein thrombosis and pulmonary embolism constitute major management strategies for chronic bed ridden patients with stroke. Ventilatory support is instituted when a patient develops a respiratory problem or slips into coma due to severe brain edema.

Physiotherapy is necessary for prevention of spasticity, contractures, and pain management. It is equally important for recovery of limb weakness, strengthening of weak muscles, and improving gait and balance. Measures to prevent and treat infections in urine, lungs, and other vulnerable sites are vital to stroke management. Psychological support for depression, cognitive and behavioral abnormalities is also important.

Neurosurgery

In about 2– 5% of stroke patients, surgical procedures, such as decompressive hemicraniectomy with duraplasty, may be needed. In very large brain infarcts with significant brain swelling, an emergency hemicraniectomy is performed in which a large flap of skull bone on the side of the infarct is removed in order to give more space for the swollen brain to expand. This procedure can be lifesaving.

Supportive Therapy

Supportive care is essential in the treatment of acute stroke to ensure that the patients get adequate nutrition, fluids, and vitamin supplements. A physiotherapist is needed for instituting limb and chest (respiration) exercises. Speech therapy and physical or occupational rehabilitation therapies are recommended in selected cases of strokes with language abnormalities and other motor or behavioral issues.

Post stroke Spasticity

Spasticity is one of the common after effects in stroke patients. Along with physiotherapy, and antispasticity drugs (baclofen, tizanidine, tolperisone and dantrolene), botulinum toxin injection can also improve poststroke spasticity in selected cases. Physiotherapy scores (Ashworth score) are used to assess the efficacy of this intervention.

Prevention of Recurrent Strokes

Along with antiplatelet agents such as aspirin and clopidogrel, risk factor mitigation is vital, i.e., control of BP, blood sugar levels, and lipids and cessation of tobacco. These and lifestyle modifications in the form of regular exercises, optimal diet, and stress reduction by yoga and meditation can effectively prevent recurrent strokes.

Carotid endarterectomy is an effective option for preventing stroke recurrence. This popular and effective surgical procedure is indicated for patients with more than 60–70% block in the carotid arteries (on the side of stroke) as evidenced by DSA, CT angiography, or MRA. Carotid angioplasty performed with a stent placement is an effective strategy to prevent a stroke. In experienced hands, it is also a good and safe procedure. Similarly, vertebral and/or basilar arteries can be stented in appropriate cases, where

surgery is not feasible.

It is duty of the physician to undertake proper counselling of the patient and relatives. In families with higher incidence of vascular events (heart attacks, strokes and peripheral vascular diseases of leg vessels), a full family screening is advocated by a qualified physician.

Stroke and COVID 19

Ischemic stroke may occur in 0.9% to 2.3% of patients with COVID-19 according to various case series. COVID 19 infection increases stroke risk by 4-7 times. Most common presentation is ischemic stroke with bilateral, multiple arterial territorial involvement which usually presents after a delay of 10-12 days of infection with novel corona virus, however it can also be presenting feature in such patients.

Pathophysiology could be multifactorial, most common and prevalent theory is of Inflammation (cytokine storm mediated) and vasculopathy. Other important mechanisms could be hypercoagulable state (antiphospholipid antibody mediated) , thrombosis, cardio embolism, endothelial damage, platelet dysfunction and hypoxia..

Moreover, anecdotal data suggest that cases of emergent large vessel occlusion (LVO) especially in younger patients without vascular risk factors suggesting plausible hypothesis of underlying vasculitis secondary to novel coronavirus infection.

Management of ischemic stroke would involve standard algorithm for covid infection management along with antiplatelets and statins with short course of anticoagulation therapy. For those patients who are appropriate candidates and in window period standard IV thrombolytic therapy & if required mechanical thrombectomy should be done; albeit

Intracranial haemorrhage

Padmashri Dr Sudhir Shah MD,DM (Neuro)
Dr Heli Shah MD,DM (Neuro)

Pearls of Wisdom:

- In cases of brain hemorrhage, the blood vessels supplying the brain rupture, causing accumulation of blood in brain wherein the patient often becomes unconscious promptly
- The most common cause of hemorrhage is sudden rise in blood pressure (BP). Rregular intake of antihypertensive medications for perfect control of BP is necessary
- Common symptoms of brain hemorrhage include severe headache, vomiting, seizures, loss of speech, stumbling, weakness in the limbs, altered sensorium or unconsciousness, and rapid breathing
- Complete and aggressive treatment in the first 24 hours alters the prognosis of hemorrhagic strokes and reduces severity of the illness.
- Computed tomography scan and angiography aid in the diagnosis of this disease and also for any surgical interventions that may be needed.

INTRODUCTION

Cerebrovascular (cerebro = brain, vascular = blood vessels) disease refers to a group of conditions caused by problems that affect blood supply to the brain. Intracranial haemorrhage accounts for 15–20% of all cases of stroke, whereas ischemic stroke (thromboembolism) accounts for the remaining 80 85%. Among the hemorrhagic strokes, intracerebral hemorrhage into the brain substance accounts for 10–15% of all strokes, whereas subarachnoid hemorrhage accounts for 4–5%.

Brain hemorrhage is an important cause of mortality and if patient survives, he/she is usually left with many disabilities."Time is brain" and hence, we should do everything to restore normalcy in the shortest possible time.

Intracranial hemorrhage can be categorized into four types, viz., (i) intracerebral hemorrhage (ICH); (ii) subarachnoid hemorrhage (SAH); (iii) subdural hemorrhage (SDH), and; (iv) epidural/extradural hemorrhage (EDH).

➢ INTRACEREBRAL HEMORRHAGE (ICH)

Intracerebral hemorrhage (intra = inside, cerebral = brain) is a condition in which blood vessels rupture deep inside the brain. Leakage of blood from the blood vessel forms a clot called hematoma. The hematoma gradually increases in size and exerts pressure on the surrounding brain tissues. The oozed blood also irritates the brain tissues leading to swelling known as cerebral edema. This exerts further pressure on surrounding brain tissues that reduces vital blood flow. Thus, the affected area becomes oxygen-deprived, leading to further brain damage. High blood pressure (BP), head injury and rupture of arteriovenous malformations (AVMs), and aneurysms are common causes of ICH. Intracranial hemorrhage occurs due to variety of causes which are given as follows:

- Intraparenchymal (intracerebral) hemorrhage is most commonly due to uncontrolled hypertension.
- Lobar hemorrhages can be due to amyloid deposition (amyloid angiopathy), especially in elderly.
- cerebral vascular malformation (abnormal vessel formation by birth) may cause hemorrhage in later life.
- Coagulation disorders may cause bleeding in brain and meninges

- Tumors may bleed into brain tissues
- Drug abuse (like cocaine), connective tissue diseases, venous sinus thrombosis can also cause brain hemorrhage
- Aneurysm can produce SAH

Symptoms of Intracerebral Hemorrhage

The symptoms of ICH depend on the location of hemorrhage, the severity of bleeding,and the size of the affected area. The onset may be sudden or gradual with progressive deterioration in the absence of prompt emergency care.

Patients with ICH develop abrupt onset of neurological deficits associated with severe headache and vomiting, followed usually by diminished level of consciousness, respiratory difficulties, and coma. Different sets of symptoms may appear in different patients depending on the area of the brain involved. A hemisensory loss can occur due to a small thalamic bleed and a hemiplegia (half body weakness) is seen in a basal ganglia bleed.

About 30% of the ICHs enlarge in size over 24–48 hours after the initial bleed and this can further increase the mortality (death) and morbidity (disability). The prognosis of ICH is poor in many cases (particularly in those with large hematomas) and survival or recovery largely depends upon the availability of proper treatment within the first 24 hours of hemorrhage onset. This reiterates the concept of "Time is brain".

Diagnosis of Intracerebral Hemorrhage

Brain imaging studies with computed tomography (CT) scan or magnetic resonance imaging (MRI) are extremely valuable for diagnosing ICH. Imaging techniques, such as perfusion MRI scans, help in assessing the blood flow to

brain. These scans can identify the location of the hemorrhage, the size of the clot, edema of the brain, and sometimes,cause and types of hemorrhage, e.g., ICH or

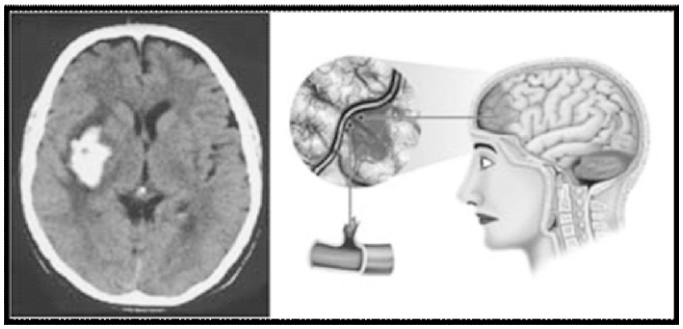


FIG. 1: Computed tomography scan of brain showing intracerebral hemorrhage with intraventricular seepage of blood

Treatment of Intracerebral Hemorrhage

"Time is brain" and the time to seek a neurologist's or specialized doctor's help from onset of symptoms must be as short as possible. A hemorrhagic stroke can quickly lead to death if timely action is not taken.

Emergency Treatment in Intensive Care Unit

Once an ICH patient reaches the specialized hospital, the following emergency treatment procedures are instituted :

- Regulation of BP and cerebral perfusion pressure (CPP)
- Maintenance of all vital signs including oxygenation, airway, breathing, circulation, and temperature
- Reduction of brain edema with antiedema drugs and other measures
- Correction of coagulopathies and bleeding disorders, if any surgery (cerebellar hemorrhage of more than 3 cm size and in some selected cases of cerebral and deep seated hemorrhages)
- Prevention and treatment of complications [bed sores, chest and urine infections, and deep vein thrombosis

(DVT)]

- Fluid, electrolyte, and nutrition management
- Appropriate nursing care
- Physiotherapy and chest therapy.

Many patients with intracranial hemorrhage will have elevated BP. This should be gradually controlled with appropriate use of antihypertensive agents in a correct dose without excessive BP reduction. Abrupt lowering of blood pressure may be harmful as it could compromise cerebral blood flow. A systolic BP target of <140 mmHg is generally advisable in cases of hemorrhage due to hypertension. This would help to lower raised intracranial pressure, while still maintaining a safe CPP between 60 and 70 mmHg.

Cerebral edema is treated with drugs like mannitol and lasix (furosemide), and antiepileptics may be needed if seizures occur. If seizures occur at home, then antiepileptics must be given by the family physician, even before transferring the patient to hospital.

Emergency care for stabilizing the patient includes close and intensive monitoring in ICU setting with emergency procedures, such as intubation and ventilator support, as and when required. Emergency surgery to aspirate blood or remove a part of the skull (hemicraniectomy) may also be necessary in specific cases with rapid deterioration. The ICH score is a clinical grading scale that has been used worldwide for mortality rate estimation and clinical outcome.

Treatment of Bleeding and Clotting System Disorders

Reversal treatments to stop ongoing drug related hemorrhage include prothrombin complex concentrate (PCC), vitamin K, fresh frozen plasma (FFP), and recombinant activated factor VIIa. Transfusion of other clotting factors may be needed in cases of a specific factor deficiency.. Prothrombin time (INR) monitoring should be

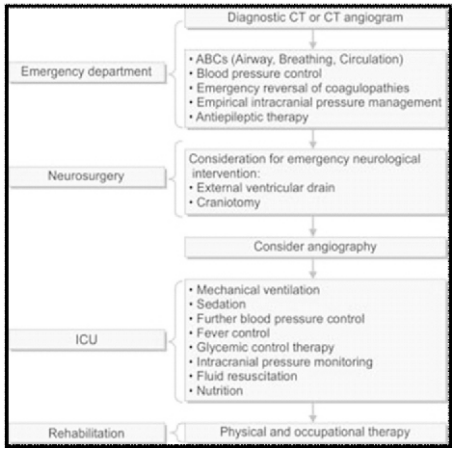
done every 7–15 days regularly to monitor the thinning of the blood in patients who are taking oral anticoagulant drugs. The dose of anticoagulants must be adjusted to maintain the PT (INR) in the desired range (usually, INR 2–3).

Surgery in Intracerebral Hemorrhage

For cerebellar hemorrhages, immediate neurosurgical consultation should be done. Most cerebellar hematomas greater than 3 cm in diameter will require surgical evacuation. Patients with cerebellar hematomas between 1 and 3 cm generally require careful observation for signs of impaired consciousness or abnormal breathing patterns. They should be taken up for posterior fossa decompression (removal of a bone flap in the occipital region) should their condition deteriorate.

Regarding hematomas in supratentorial compartments, i.e., lobar, basal, ganglionic, and thalamic bleeds, the overall outcome of surgical evacuation is not better than conservative medical therapy, except in certain selected cases.

Management Goals for Intracerebral Hemorrhage



Flowchart 1: Management goals for intracerebral hemorrhage

➢ SUBARACHNOID HEMORRHAGE

Subarachnoid hemorrhage results from rupture of blood vessels in the brain with a resultant oozing of blood into the subarachnoid spaces. SAH can affect any age group but risk is higher in females. An aneurysm is a condition in which wall of an artery develops a weak spot and balloons out to form a localized globular swelling. This gradually increases in size and may suddenly rupture one day, causing SAH. These aneurysms are usually situated at the bifurcations of large arteries at the base of the brain called "circle of Willis". Commonly, in the unruptured state, they do not cause direct damage to the brain.

Common risk factors for SAH include hypertension, family history of aneurysm, fibromuscular dysplasia (abnormal structure of arterial walls), connective tissue disorders, and polycystic kidney disease. Other risk factors include smoking, alcoholism, and cocaine addiction.

Symptoms of Subarachnoid Hemorrhage

Symptoms of SAH usually appear suddenly with severe, excruciating headaches.

Symptoms of SAH often relate to diffuse disturbance of brain function and may not be localized to a specific area. The sudden release of blood under high pressure increases pressure inside the skull and causes sudden onset severe headache with other signs of raised intracranial tension like vomiting, blurring of vision, and altered sensorium.

Sudden onset of severe headache (thunderclap headache), commonly over back of head region

- Momentary loss of consciousness
- Stiffness in the neck
- Nausea and vomiting
- Vision changes
- Seizures

- Mood changes
- Confusion
- Weakness in the limbs
- Irregularities in vital functions like respiration, blood pressure, and heart rate

Diagnosis of Subarachnoid Hemorrhage

Stiffness of the neck, vision problems such as photophobia along with severe thunderclap headache at onset are the classical tell-tale signs of SAH. Imaging tests for diagnosis of SAH include magnetic resonance angiography (MRA) of the brain, CT angiography scans, and digital subtraction angio graphy (DSA). The gold standard test for diagnosing aneurysms is the conventional four vessel angio graphy or DSA. In about 15% of cases with SAH, more than one aneurysm may be present and hence, angiography of all four principal blood vessels of the brain is mandatory. This would facilitate timely planning of surgical or endovascular intervention.

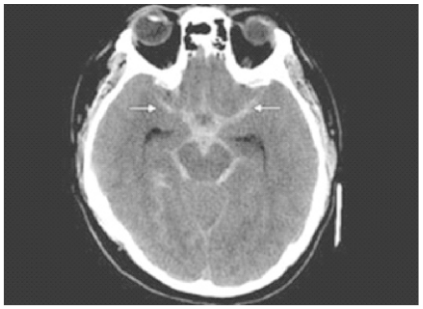


FIG. 2: Computed tomography scan of a patient with subarachnoid hemorrhage

Treatment of Subarachnoid Hemorrhage

Rebleeding is a major cause of mortality in patients with SAH. An aneurysm causing SAH must be obliterated in order to prevent a rerupture of the aneurysm and recurrent SAH. This is achieved either by surgically clipping the aneurysm or coiling it. In selected cases, flow diverters or stents can be used with coiling.

Medical Therapy for Subarachnoid Hemorrhage

There are four major causes of delayed neurologic deterioration and mortality in SAH.

They include: (i) rerupture leading to rebleeding; (ii) delayed vasospasm (constriction of blood vessels of brain); (iii) hyponatremia, and; (iv) hydrocephalus. Prevention of rebleeding by clipping or coiling of aneurysm can be done.

The medical management focuses on protecting airway, maintaining optimum BP before and after aneurysm treatment, managing vasospasm, treating hyponatremia, and preventing complications like rebleeding and hydrocephalus, and preventing pulmonary embolism.

As **vasospasm** (constriction of brain blood vessels) remains the major complication following aneurysmal SAH, the drug nimodipine (calcium channel blocker), oral or intravenous, should be given to improve outcome. It helps by reducing risk of vasospasm and thereby preventing ischemic injury. If symptomatic vasospasm does occur, it must be treated by carefully maintaining adequate CPP through plasma volume expansion.

Hyponatremia (decrease in sodium level in blood) can be treated by intravenous fluids containing normal saline, fluid restriction strategies, and oral salt supplementation. Sometimes, intravenous hypertonic saline (3% saline) solutions can also be used judiciously, if indicated. Rapid correction of hyponatremia should be avoided to prevent grave neurological complications like osmotic myelinolysis.

Hydrocephalus is another complication of SAH. It presents with a relatively abrupt onset or persistence of stupor or coma after the initial rupture. It requires ventricular drainage of CSF through an external ventricular device. If it persists then, ventriculo peritoneal shunt may be required. As the mortality in aneurysmal SAH is very high, it is best that the patient is managed at a tertiary neurological centre with the required expertise

OTHER TYPES OF HEMORRHAGES

Although head trauma is the most common cause of SDH, bleeding disorders could also be responsible. In SDH, symptoms of headache and brain dysfunction may be delayed for weeks after head injury due to the slow rate of bleeding. In EDH, the bleeding results from a tear of meningeal arteries which is usually due to a skull fracture that has damaged the middle meningeal artery. In EDHs, symptoms usually develop rapidly soon after head injury, as blood accumulates much faster from the arterial tear. It is usually a neurosurgical emergency requiring immediate evacuation of the blood clot.

PREVENTION OF BRAIN HEMORRHAGE

Detection and meticulous control of high BP is the main key to prevent hypertension related intracranial hemorrhage. One should take all precautions if one is on a blood thinner medication. Smoking, use of tobacco or addictive drugs, and excess of alcohol must be stopped. Regular lifestyle and exercises go a long way in avoiding such mishaps. It is needless to say that risk factor mitigation if any and optimum management of hypertension, are crucial for prevention of brain hemorrhage.

INTRACRANIAL HEMORRHAGE AND COVID 19

Intracranial hemorrhage including lobar, subcortical bleeds and cortical venous sinus thrombosis are one of the common cerebrovascular manifestations associated with infection with novel coronavirus. Possible underlying mechanism could be immune mediated, cytokine storm mediated inflammation, vasculitis, endotheliopathy, megakaryocyte dysfunction, altered coagulation profile and sepsis.

Case reports have emerged of increased mortality due to ICH with concomitant COVID 19 infection. Management for ICH would be measures to reduce raised intracranial pressure and surgical intervention if required along with standard treatment for COVID and antiseizure medication. Patients with CVST would require anticoagulation therapy in addition to above discussed management protocol.

AHMEDABAD MEDICAL ASSOCIATION
HALL DONATION AND DEPOSIT CHART

Effect from 1-4-2016 Phone : 26588775 Office Time : 2 to 6 p.m.

Dr. R. M. Fozdar Hall (capacity 248 Seats)

	Others	members
Hall Deposit (Refundable)	Rs. 5,000-00	Rs. 5,000-00
Dr. R. M. Fozdar Hall (For 3 hours) Non A.C.	Rs. 4,500-00	Rs. 3,500-00
Extra Charges for 1 hour (Extra charges limit upto 3 hours)	Rs. 800-00	Rs. 700-00
A.C. Charges (For 3 hours)	Rs. 4,000-00	Rs. 3,500-00
(Extra Charges 1 hour) A.C.	Rs. 1,200-00	Rs. 1,000-00
Dr. R.M. Fozdar Hall Full Day (9 a.m. to 7 p.m.) Non A.C.	Rs. 11,000-00	Rs. 9,000-00
A.C. Full Day - Dr. R. M. Fozdar Hall	Rs. 11,000-00	Rs. 9,000-00

OPEN GROUND WITH Dr. R. M. Fozdar Hall

For Lunch / Dinner	Rs. 5,000-00	Rs. 4,000-00
For Refreshment	Rs. 1,200-00	Rs. 1000-00
Cleaning + Electric	Rs. 700-00	Rs. 600-00

JAGMOHAN PARIKH HALL 1ST FLOOR
(Capacity 100 Chairs)

Hall Deposit (Refundable)	Rs. 4,000-00	Rs. 4,000-00
J. P. Hall (For 3 hours) Non A.C.	Rs. 3,000-00	Rs. 2,500-00
Extra charges for 1 hour (Extra charges limit upto 3 hours)	Rs. 700-00	Rs. 600-00
A.C. Charges (For 3 hours)	Rs. 2,000-00	Rs. 1,500-00
(Extra charges 1 hours) A.C.	Rs. 600-00	Rs. 500-00
J. P. Hall Full day 9 a.m. to 7 p.m. (Non A.C.)	Rs. 7,000-00	Rs. 6,000-00
J. P. Hall A.C. Full Day	Rs. 6,500-00	Rs. 5,500-00

OPEN GROUND WITH DR. J. P. HALL

For Lunch / Dinner	Rs. 2,500-00	Rs. 2,000-00
For Refreshment	Rs. 700-00	Rs. 600-00
Cleaning + Electric	Rs. 500-00	Rs. 400-00

Dr. R. M. Fozdar Hall, J.P. Hall & Open Ground is not permitted for following purpose.
• Political programme • Music programme (Professional) • Marriage & Reception • Event

Token Rates applicable for :
• GSB • IMA • S.S.S. • P.P.S. • N.S.S.S. • Health Scheme • Ladies Club