

CONTRIBUTION BY DR SUDHIR BHANDARI

IN COVID -19

During COVID-19 Pandemic under leadership of Dr Sudhir Bhandar

The COVID-19 (Coronavirus Disease, 2019) Pandemic appeared on the horizon of State of Rajasthan in last week of February, 2020 and the dedicated team of S.M.S. Medical College and Attached Hospitals, Jaipur under its visionary leadership of Professor (Dr.) Sudhir Bhandari, took the onerous responsibility of the torch-bearer in planning and laying out strategies for prevention, containment and management of COVID-19 pandemic caused by the novel virus, SARS-CoV-2 (Severe Acute Respiratory Syndrome Coronavirus-2). The piercing insight and vigil could appreciate the dictates of containing and managing a pandemic by keeping the numbers of new cases low, not overwhelming State health care system with an aim of early diagnosis, ruling out false negatives to a bare minimum, immediate isolation with prompt and aggressive and hawkish management protocol, keeping the recovery rate above 90%.

The persistent and perseverant efforts backed by piercing scientific insight through measures of early initiation of prevention through State-wide lockdown (setting an example for other States to follow), receptor blockade through prophylactic administration of hydroxychloroquine (HCQ) of Health-Workers and early in course administration of available anti-virals contained the pandemic in the State of Rajasthan giving rise to a phenomenally low numbers of new cases on a daily basis with top-of-the-line recovery rate, that acted as benchmark for other States to follow.

The bemusing novel SARS-CoV-2 had baffled and flummoxed Medical Sciences the world-over and the Team S.M.S. Medical College and Attached Hospitals, Jaipur took upon the uphill task of evolving a rationale prescient strategy of diagnosing through HRCT Chest (High Resolution

Computed Tomography of Chest) and Point of Care Ultrasonography (POCUS) besides the conventional gold standard of RT-PCR (Real Time Reverse Transcriptase Polymerase Chain Reaction) in an attempt to capture the disease in its early nascent, isolating, monitoring and managing with recovery in order to keep the disease burden low and not letting the pandemic reach its gigantic uncontrollable form. It had always been of utmost relevance to keep the number of new COVID-19 patients to levels as low as possible and an elaborate strategy enhancing capacity for COVID-19 patients ensuring that the pandemic at no stage overwhelms the State's precision Medical Facilities.

The Institute, S.M.S. Medical College and Attached Hospitals, Jaipur was the first of its kind in the State of Rajasthan to have taken the perilous onus of lung biopsy of deceased patients of COVID-19 [with due emergency permission from its duly registered Ethics Committee (EC) with Central Drugs Standard Control Organisation (CDSCO), Drugs Controller General of India (DCGI), New Delhi along the guidelines so set forth by Indian Council of Medical Research (ICMR), New Delhi] in order to get an insight into the pathogenesis and pathophysiology of the COVID-19. Subsequently, management strategy was evolved with incorporation of thrombolytic agents and steroids in the management protocol dependent on the stage and severity of the disease-form.

Accordingly, varied Academic Clinical Drug Trials in collaboration with ICMR and World Health Organisation (WHO) set the ball rolling for an evolving treatment stratagem according to the course and severity of the disease-form.

An aggressive, vigilant and scientifically valid management protocol so formalised to be adopted across the State of Rajasthan secured the daily numbers of new COVID-19 patients to be low with a recovery rate that subsequently went over and above the encouraging and gratifying figure of 97%.

Professor (Dr.) Sudhir Bhandari become torch bearer for vaccination programme of State by being FIRST **HEALTH WARRIOR** who was vaccinated on 16thjan2021

COVID MANAGEMENT TEAM



COVID RUHS HOSPITAL

Dedicated COVID Hospitals for treatment of COVID patients:

- Total Centers: 668
- COVID Care Center: 273
- COVID Health Center: 249
- Dedicated COVID Hospitals: 146
- Total Private Authorized Hospitals: 301



Bed facility for COVID patients:

- Isolation Beds: 36834
- Oxygen Supported Beds: 17965
- ICU Beds: 5990



Use of modern medicine:

- Facility of modern medicine Monoclonal antibody, Tocilizumab, Remdesivir, Convalescent plasma etc. has been made available at 06 medical college level for serious patients.



We are first to use HCQS (HYDROXYCHLOROQUINE) and ANTIVIRAL DRUGS (LOPINAVIR/RITONAVIR) in the beginning of COVID 19 pandemic, which was acknowledged internationally & by united nations.



Docs: HCQ game-changer in treating virus patients

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Jaipur: Doctors in the state have used the drug, hydroxychloroquine (HCQ), extensively, which they are calling the 'game-changer' for treating Covid-19 patients. So far, 47 patients have been cured in the state after being treated in various government hospitals.

In the new treatment protocol, there is no place for oseltamivir, a drug useful for treating swine flu, which was given initially by SMS Hospital doctors to Covid-19 patients.

"Adequate due diligence is being done while treating Covid-19 patients. In addition to meticulously following the treatment protocol, appropriate treatment is also given to

► **State to release 25% HCQ stock for arthritis patients, P 3**
other vulnerabilities such as pre-existing diseases," said Dr Rohit Kumar Singh, additional chief secretary, health, adding that the patients are also given a rose at the time of discharge by the hospital.

► **Continued on P 3**



American Journal of
Emergency & Critical Care Medicine

Research Article

A Comparative Study of Hydroxychloroquine and add on Lopinavir-Ritonavir Therapy in Symptomatic COVID-19 Patients-8

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We are also pioneer in early uses of drugs like REMDESIVIR AND TOCILIZUMAB in reducing morbidity and mortality, even when WHO was sceptical & it was seconded by USFDA.



Now, US FDA says remdesivir drug effective in checking Covid deaths

WHO Had Said Drug Couldn't Check Mortality

Times News Network

Jaipur: Days after Haryana Health Minister had said that remdesivir had little or no effect on the overall mortality of Covid-19 patients, the US Food and Drug Administration (FDA) has approved the drug for treatment.

On October 20, the FDA said it had approved the drug for use in patients with Covid-19. The FDA said it had approved the drug for use in patients with Covid-19. The FDA said it had approved the drug for use in patients with Covid-19.

STATE COVID UPDATE

Total cases: **1,86,243**
New infections: **1,821**
Total Deaths: **339**

Sunday's casualties: 13 (Jaipur 2, Alwar 1, Barmer 1, Bikaner 1, Chittorgarh 1, Dungarpur 1, Jodhpur 2, Kota 1, Sikar 1, Tonk 1, Udaipur 1)

Total deaths in Jaipur | 363

Recovered on Sunday | 2,349 cases 710

Recovered so far | 1,62,736

Sample received in state | 34,34,099

Sample negative | 34,34,099

These findings were in direct contrast to the report published on October 16 in the New England Journal of Medicine by a team led by researchers at the Harvard Medical School and the Infectious Diseases (HMS-IGD) that documented the fact that remdesivir helped hospitalized Covid patients to recover faster compared to placebo, said the Haryana Health Minister.



the illness, it was not considered entirely effective by WHO, said the officials.

On the other hand, Haryana's Covid management protocol drafted by team of experts from SMS Medical College (Jaipur), Jaipur and issued on October 27 by the health department, had recommended the use of remdesivir in moderate to severe illness (those on oxygen), started early in the course of the disease. "We are providing it to patients with moderate symptoms and the disease are asymptomatic," said Dr Ajit Singh, member of Covid treatment group, SMS Hospital.

The team of experts at SMS Medical College had followed the WHO's findings and recommended to use it and continue to use it as an effective antiviral ribonucleoside inhibitor of viral RNA polymerase drug used before the FDA approval. Remdesivir was first described in the literature in 2006 as a potential treatment for Ebola. In 2017, its activity against the coronavirus family of viruses was also demonstrated.

With the approval of FDA for use against the pandemic, the confidence among doctors has now been reinforced.

Function of COVID management committee at state level:

- Micro containment,
- Deployment of Rapid Response Teams,
- Creation of COVID care centers,
- Ensuring Total protocol implementation,
- Starting First Plasma Bank of state and was pioneer of plasma therapy,
- Orientation & sensatisation programme of Dr's and paramedics all over the state.



Formation of committee to monitor the treatment protocol:

To ensure proper management of COVID-19 patients district wise committee has been constituted.



Robotic Services for COVID Management:



As a result, mortality rates in Rajasthan tumbled from 4% to less than 0.4%.

First India

COVID-19 UPDATE

COVID-19 UPDATE	DEATHS	CONFIRMED CASES	RECOVERED	EXTENDED CARE	DEATHS	CONFIRMED CASES	RECOVERED	EXTENDED CARE
4,48,108	83,27,973	12,065	3,63,209	313	13,542			

RAJASTHAN ON TOP IN RECOVERY FROM COVID-19

Dr. Sudhir Bhandari, Principal, SMS Medical College

Wellness

the impossible, possible!

DR SUDHIR BHANDARI
Principal
SMS Medical College

SMS Hospital is the biggest Government Hospital in the state with thousands of patients coming in everyday. The biggest challenge that was before us was to convert this huge hospital into a Covid centre while ensuring that we followed all safety guidelines and protocols but at this crucial juncture the entire team of SMS of 1500 resident doctors and 800 faculty all came together irrespective of their specialisations and disciplines and transformed the hospital. We setup a separate centre for Covid patients and immediately started escalating our testing facilities. We were conducting almost 3000 tests per day and I am proud to say by middle of July we will be conducting 7000 tests per day. The entire of SMS got together to create world class investigation facilities and with early diagnosis and aggressive testing we have been at just 2.3% of mortality rate which has been of patients with co-morbid conditions.

On this special day I would like to say that Team SMS was the biggest strength and sole factor for accomplishing all that we did. Of course there was a lot of fear as this was a new virus and by the time it came to our state it had already been spreading the world over but in spite of the odds all the resident doctors, faculties, nurses, lab technicians, pathologists everybody came together to make SMS one of the leading centres for treatment and care for Covid-19 patients.

THE HINDU

Mutant strain of virus to be studied in Jaipur

Hospital developing facility for its lab

Dr. Sudhir Bhandari, Principal, SMS Medical College

A mutant strain of the coronavirus (COVID-19) is being studied in Jaipur. The strain is being studied in the laboratory of the SMS Medical College. The strain is being studied in the laboratory of the SMS Medical College. The strain is being studied in the laboratory of the SMS Medical College.

Vaccination against COVID-19



Workup Plan for COVID-19 Patients at SMS Medical College & Attached Hospitals, Jaipur (India)

(in addition to routine work)

- ❖ HR CT Chest
 - ❖ Xray PA Rest
 - ❖ CT-Pulmonary Angiography
 - ❖ POU (Point of Care Ultrasound of Lungs)
 - ❖ Echo Doppler Study
- ❖ Hematological work-up
 - ❖ CBC PBF ESR, Protrombin time
 - ❖ CD4, CD8, D Dimer, FDF, CRP, PRO-CAL
- ❖ Cytokine Storm Workup
 - ❖ 1L-1, 1L-6, 1L-10, TNF ALFA



COVID ICU AT RUHS



CORONA WARRIORS SMS

RAJASTHAN'S FIRST VACCINATION



VIDEO CONFERENCING WITH HONORABLE PM



INFECTIOUS DISEASE HOSPITAL

