



DETECTION AND MANAGEMENT OF CORONAVIRUS

A brief document on Detection & Management of Coronavirus. (All the methodologies listed here are only for information & education purposes & to ensure that patients are not left unattended in this healthcare catastrophe. Please check with your doctors on advice for medicines which might have side effects. The reason we have listed drug names also instead of just salts is that we don't want patients to waste time on google searching salts, we as a group have no allied interest / vested intent in promoting any of the pharmaceutical brands). Stay Safe/ Create Safety Net Bubbles Around You / Be Paranoid / Mask Up / Get Vaccinated. As a hospital promoter I can tell you that patients who had been vaccinated are seeing extremely mild / moderate symptoms. Vaccines might not protect you from contracting the disease but will surely help in saving your life.

Our healthcare infrastructure is in a mess currently, let all of us get educated on Covid & become Covid Doctors so that we ensure that we don't add to the list of severe cases who need hospitalisation & at home can treat ourselves & our families & at the same time know when to knock the doors of a hospital. Let us ensure that there is no 3rd wave by acting paranoid, acting swift & ensuring there is mass vaccination.

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SYMPTOMS

WHAT HAPPENS WHEN I GET COVID?

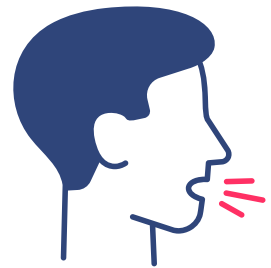
Most Common Symptoms:



FEVER



TIREDNESS\BODY PAIN

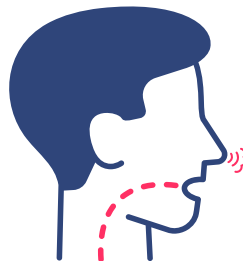


DRY COUGH

Less Common Symptoms:



DIARRHOEA



LOSS OF TASTE/SMELL



SORE THROAT

ISOLATION

THE BEST WAY TO PROTECT YOUR LOVED ONES

In case of any such symptom, the 1st thing to do is ISOLATE. Being paranoid is the best strategy.

Covid-19 is a highly contagious disease. On the first symptom, remember to strictly isolate.



SpO2

GET A PULSE OXIMETER AND CHECK YOUR SPO2 REGULARLY

The correct technique to using SpO2:

Sit on bed/chair. Place the SpO2 monitor on the left index/middle finger and wait for 45 seconds. The 45th second reading is your SpO2 reading.

Any reading < 92 is an indication for Oxygenation. Normal SpO2 is > 95 .



Awake Prone (lying face down): For saturation below 94 to improve oxygenation.

1. 30 minutes – 2 hours: laying on your belly



4. 30 minutes – 2 hours: lying on your left side



2. 30 minutes – 2 hours: laying on your right side



Then back to Position 1. Lying on your belly!



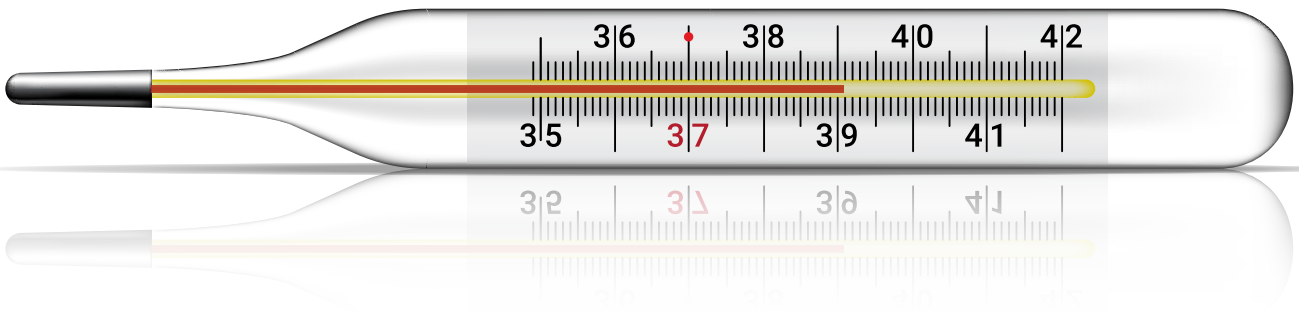
3. 30 minutes – 2 hours: sitting up



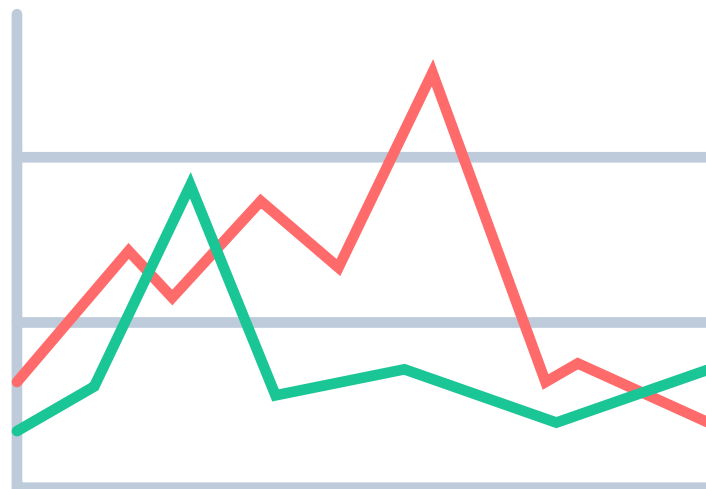
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TEMPERATURE

1. Monitor temperature by a mercury thermometer. It gives a very accurate reading (better than digital). Normal temperature of human body is *97.56 F to 99.6 F*. We consider fever only when temperature is *> 99.6 F*. You probably heard that the average human body temperature is *98.6 F*. But in recent times temperature varies between *97.5-99.6 F*.










2. Create a temperature chart.



3. Fever medicines like *Paracetamol/Dolo/Crocina/Calpol* should only be taken in SOS meaning Signs of Stress (in case of symptoms) and not regularly. But the minimum time interval between 2 doses of any antipyretic should not be less than 4 hours.

IDENTIFY YOU HAVE COVID-19 OR NOT

PROBLEMS	COVID-19	FLU	COLD
 Incubation Period	2-14 days	1-4 days	1-3 days
 Symptom Onset	Gradual	Abrupt	Gradual
 Cough	Common	Common	Mild to moderate
 Shortness Of Breath	Common	Sometimes	Mild
 Fever	Common	Common	Rare
 Fatigue	Common	Common	Sometimes
 Runny Nose	Sometimes	Sometimes	Common

4. In case of body pain please take *Mefenamic Acid* eg. Meftal 500 but only SOS (Sign of Stress). Again, for all medications please consult your doctor before taking. The purpose of this document is to ensure that you know what options you have & can discuss with your doctor & not to self administer as different bodies react differently to medicines.

5. If antipyretics are not able to decrease the fever & within 4 hours of taking them again fever is emerging, instead of taking the medication again please do **Cold Compression\Tepid Sponging** & do a *doctor consult*.



TEST TEST TEST

1. We understand that RTPCR/other testing modalities are in short supply. But try to arrange for an RTPCR as soon as possible.



SWAB



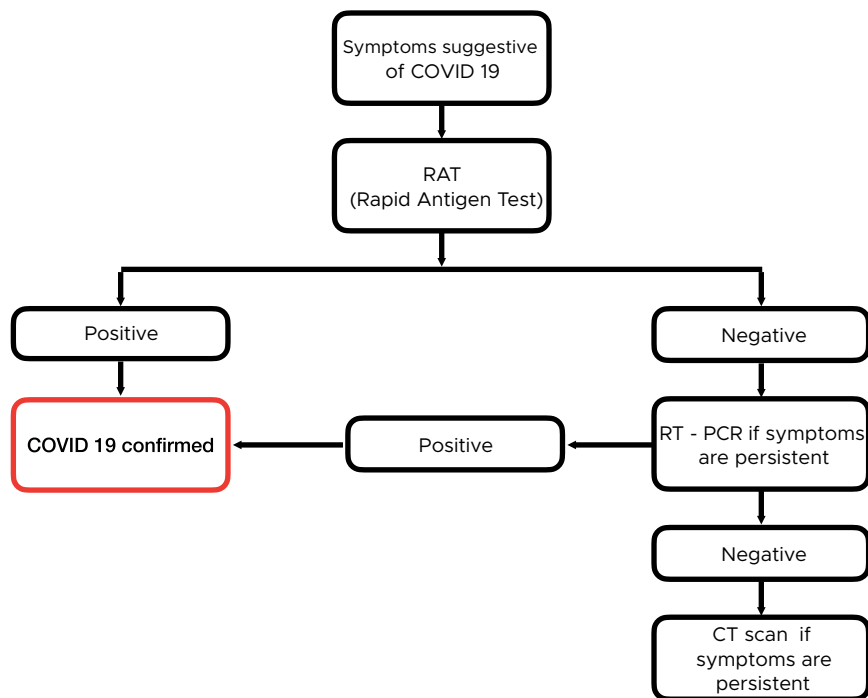
LYSIS BUFFER



**RT - PCR
MACHINE**

2. If an RTPCR is not accessible please get a RAT(Rapid Antigen Test) done, though the false negativity is high and if the test shows positive for Covid-19, then no further RTPCR and CT needs to be done, but in case of negative test RTPCR/CT needs to be done. If RTPCR comes as negative and still symptoms persist, then please get a CT scan done.

3. CT Scan: this is a fairly conclusive test for Covid testing but should be used as a last resort as its extremely radiation prone (X-ray) and not accessible for all cases.



Ground Glass opacities is a diagnostic of Covid in these times. (CORAD Score helps in Diagnosis & CT Severity Score helps in Prognosis estimation).

START THE FOLLOWING TREATMENT ON EMER- GENCE EVEN IF TESTING HAS NOT BEEN DONE

1. *ZINCOVIT* 1xBDx10 days (12 hourly) Multi-Vitamin + Multimineral Support.
2. *Limcee chewable vitamin C* tablets 1xTDSX10 days (Three Times a Day).
3. Steam with *camphor TDS* (Three Times a Day).
4. Gargles and *Betadine BD* (12 hourly).
5. Drink a lot of *liquids*:
 - i. Lemon Juice
 - ii. Haldi milk
 - iii. Anar Juice
 - iv. Mausami Juice
 - v. Water
 - vi. Soup
 - vii. Methi seeds in water
 - viii. Kaadha
 - xi. Coconut Water
6. Have a *nutritious diet* with fresh vegetables, fruits, ashwagandha, amla, chawanprash, high protein diet(dal, raw paneer, soya, milk, nuts). There is no study to show the significance of the above food and liquid intake; this is purely on the basis of personal experience and the fact that they don't have any side effects and augment general immunity.
7. Pranayama and breathing *exercises*.

WHAT TO DO WHEN TESTED POSITIVE (MEDICATION) * ONLY AFTER CONSULTATION OF YOUR DOCTOR

1. ANTIBIOTIC

Covid is a viral infection technically there is no role of an antibiotic but to contain any bacterial superinfection, it should be taken. Eg: Azithromycin 500 mg OD x 5 days, Doxycycline 100 mg BD x 5 Days.



2. ANTIVIRAL

The use of a drug called Favipiravir has been recommended by the NMPAC and has been used in the US as well. Favipiravir (oral) medicine is given in the following way:

Day 1: Loading dose: 1800 mg x BD

Day 2 - Day 7: 800 mg x BD

The consumption of favipiravir should only be done after consulting a doctor. Favipiravir selectively inhibits the RNA polymerase which is necessary for viral replication.

3. IVERMECTIN

Is an inhibitor of Covid-19 causative virus (SARS CoV-2). It has been shown to have 5000 fold reduction in virus at 48h in cell structure. Ivermectin is taken 12 mg OD x 3 days. Though ivermectin as a drug is an antiparasitic and has been approved by the FDA for the same classification, please consult your doctor before taking this.

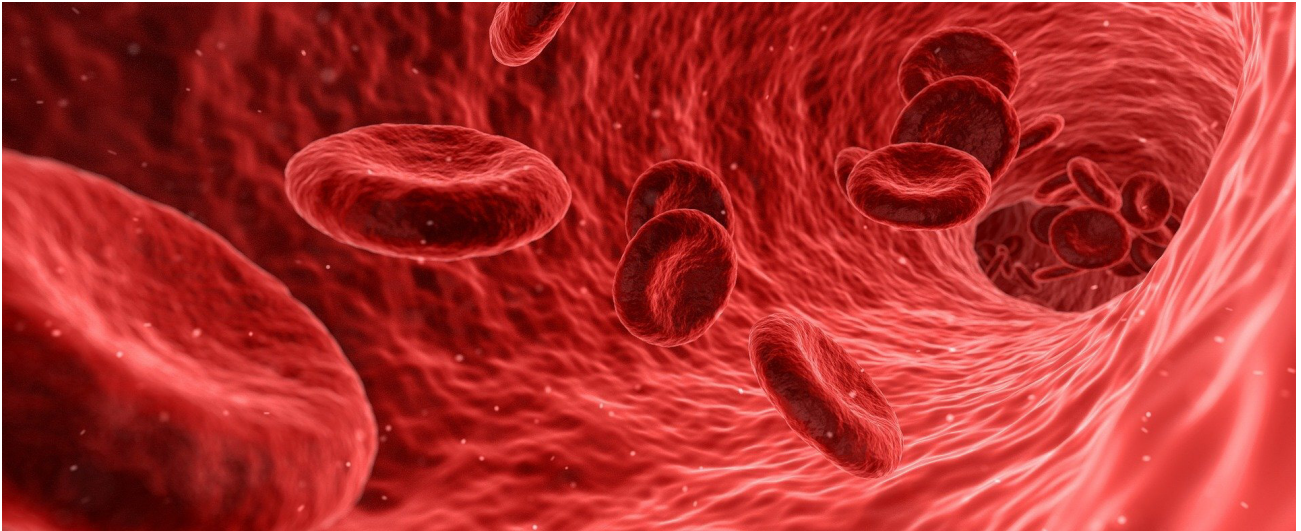
4. ANTITUSSIVE FOR COUGH

Cough syrup eg Benedryl; chlorpheniramine are used for symptomatic cough relief. It should be taken after consultation with your doctor. Mucinac 600 dispersible tablets is a sugar free mucolytic medicine. It works by thinning the mucus (phlegm), making it easier to cough out. It clears the air passage and makes breathing easier and also has anti-oxidant action. To be taken after consultation with your doctor. 1 x BD x 7 days.



5. ANTICOAGULANTS

As we learned about the connection between blood clots and COVID-19, we knew that aspirin used to prevent stroke and heart attack could be important for COVID-19 patients *This is only for heart / stroke patients & to be administered under proper guidance of a doctor, not to be consumed as such for mild / moderate cases without comorbidities.



6. INHALED BUDESONIDE

A steroid used to treat asthma, if given early to Covid-19 patients with mild symptoms, scales down the need for urgent medical care and reduces recovery time, a new study published in The Lancet Respiratory Medicine has said.



THE CURIOUS QUESTION OF STERIODS?

- 1.** Steroids are extremely effective in moderate to serious cases.
- 2.** We preferably defer giving steroids for the first 7 days as the virus is in its replication phase and administration of steroids may lead to flaring up of the viral replication.
- 3.** Both Dexamethasone and Methylprednisolone are being used. Eg: Dexona/ Dexacort (6mg OD x 5 days) + 3mg x OD x 3 days + 1.5mg OD x 3 days. In case of methylprednisolone (Medrol 16 mg BD x 5 days + 8 mg BD x 3 days + 4mg BD x 3 days).
- 4.** Steroids are never stopped abruptly and need to be stopped in a weaning depreciation manner.
- 5.** Steroid administration has a lot of uses/ harms. Thus caution should be that this needs to be administered only under the supervision of a doctor.
- 6.** Steroids behave very weirdly in diabetes' blood sugar level needs to be monitored during the steroid treatment and diabetic medication may need to be altered while on steroids.
- 7.** In cases where fever does not subside/ CRP does not get under control/ hypoxia occurs and steroid can be given but in consultation with a doctor.

INVESTIGATIONS

On day 7, a CT scan should be done and CT severity score should be checked. On day 4/7/11 Covid profile should be done which has the following tests: (repetitive lab investigations need to be done only in moderate to severe cases as per your doctors suggestion. Else, in mild/asymptomatic cases lab tests are not required unless indicated by the doctor)

1. Complete Blood Count *
2. Albumin/Globulin/AG Ratio
3. LDH *
4. S. Ferritin *
5. AST
6. ALT
7. Urea *
8. Creatinine *
9. IL6 (Semi-Specific)
10. D-Dimer *
11. CRP *
12. Procalcitonin
13. PT



ADMISSION INDICATORS

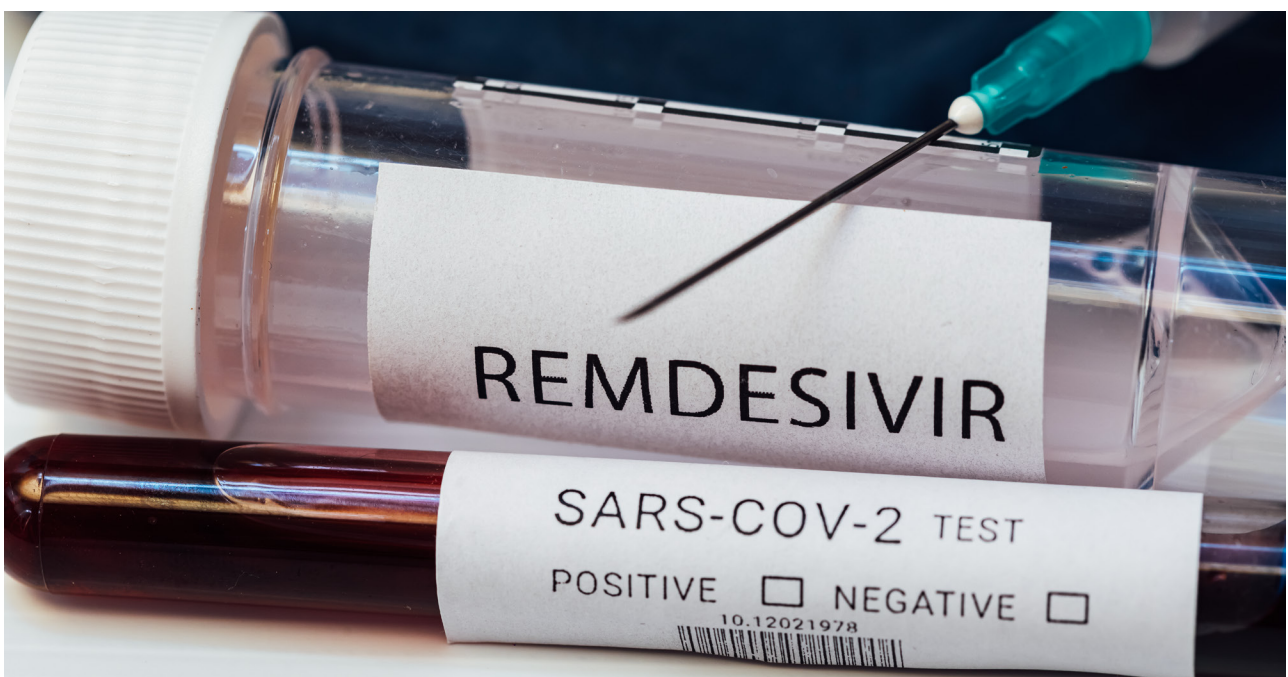
1. < 93 SpO₂
2. Fever not getting under control by antipyretics/steroids
3. Comorbidities
4. Worsening CT / Lab reports
5. Breathlessness



SEVERE COVID CASES

1. REMDESIVIR

Though there are a lot of theories on the efficacy of Remdesivir, but our experience at Radix Healthcare showed that Remdesivir is effective. Though there is no conclusive evidence but in cases where hospital admission is indicated we're recommending Remdesivir within the first 10 days of the first symptom. Role of Remdesivir is questionable post 10 days of the first symptom. Dose 100 mg X 6 vials. Stat dose of 200 mg on Day 1, then 100 mg every 24 hours till day 5.



2. IV STEROIDS

Steroids have proven to be life savers in case of high CRP / hypoxia. In cases where oral steroids don't work get admitted & IV steroids should be started.

3. BROAD SPECTRUM ANTIBIOTICS

To cover for super infection / secondary bacterial infection, IV antibiotics like monocef can be started in a hospital environment.



4. TOCILIZUMAB

This is a wonder drug in serious cases. Comes in names such as Actmera. This is an IL-6 inhibitor which has proven to save a lot of lives in cases of Cytokinin Storm / highly elevated IL-6 levels.

5. PLASMA THERAPY

Wildly disputed theories are there for Plasma Therapy, but as the disease is so new, for serious patients we should try each & everything. We've seen PT works, & a shot must be given in serious cases.