

DISCHARGE FOLLOWING COVID19 INFECTION

This clinical practice guidelines aims to bring into practice a discharge processes unique to COVID-19, including protocols for monitoring of disease progression/regression and follow-up care; and care for social and functional needs during the post-discharge period, and preventing any complications which may or may not be foreseen at the time of discharge.

The variable clinical course of COVID-19 complicates transitions of care because although some patients improve quickly, some worsen after a period of clinical stability and some require weeks to recover completely.

Patients of Mild-Moderate COVID19 disease (Category A, B, C, D, E) who are not severely immunocompromised do not require a repeat microbiological testing (RTPCR/RAT) before discharge. They can be discharged if:

- At least 10 days have passed since symptoms first appeared **OR** At least 10 days have passed since the date of their first positive viral diagnostic test.
- **AND** they are asymptomatic/Improving symptoms for last 3 consecutive days.
- **AND** does not have any worsening or Severe Symptoms like Breathlessness/ Chest pain/ Altered Mental State/ etc.
- **AND** Patient must be maintaining a saturation more than 94% on room air.

If the patient has a Saturation of <94% with Room air, but otherwise is clinically stable and improving, he needs to be discharged on a Home Oxygen therapy, preferably on an Oxygen Concentrator. If not, he/she can be shifted down from a Designated COVID Hospital to a COVID Care Centre where appropriate Oxygen supply is available.

Patients of Severe COVID19 disease (Category F), who is asymptomatic/ Symptoms are improving for a minimum of 3 consecutive days, after 10 days of appearance of first symptom, needs to be tested for Microbiological clearance before he/she can be discharged.

- If the sample is Negative, then the patient can be shifted to Non-COVID hospital/ward in case he/she requires further care for management of his/her comorbid illness.
- If the test is positive, it is advisable to repeat the test after 48 hours.

These Patients will receive:

- Oral Anticoagulation for 21 days. Continuation to be decided by treating physician on case-to-case basis.
- T. Pantoprazole 40mg 1-0-0 for 5 days.

Treatment to be reviewed on 7th day when he/she comes for follow-up.

All Patients >40 years, and all patients with comorbidities should get CBC, Blood Sugars, HbA1C, D-dimer, Ferritin, CRP levels 24 hours before discharge.

- **A detailed summary must be given to the patient** when he is discharged from the hospital. It must include the demographic data, his/her presentation to the hospital, the course as the inpatient, any procedures performed, all the medications he received, all the investigations that was done. Also, the COVID appropriate practices to be followed must be properly advised to the patient.

The Medications he has to continue must be properly advised to the patient/caregiver. Special attention must be given to mention the duration for which the medications must be taken.

- All patients both at home isolation and those admitted in CCC/DCHC/DCH Should come for follow-up after 1 week of discharge to the respective hospital where they have been treated who had Elevated blood sugars, Elevated D-Dimers, Elevated Ferritin levels or Elevated CRP levels at the time of discharge.

The values must be measured again during the Follow-up visit.

As COVID19 itself can cause hyperglycaemia, the management of Hyperglycaemia must be vigorously managed with anti-hyperglycaemic medications

- **All patients with any underlying comorbidity**, must continue the medications that they were receiving for the management of the illness. Any modifications can be done as appropriate so as to shift from an injectable to orally administered medication by their treating physicians.

All patients with any comorbidity must receive:

T. Aspirin 75mg + Clopidogrel 75mg 0-0-1 for 15days, **in consultation with treating physician on case-to-case basis.**

- **Any patient with elevated D-Dimer levels** above normal or Having any high-risk conditions for developing Thromboembolism or having any underlying comorbidity that predisposes to pro-coagulant status, at the time of discharge shall receive oral anticoagulation for a duration of 21 days.

If Renal Functions are normal, the suggested oral anticoagulants are as follows:

(Any derangements in Renal Function needs to consult a nephrologist before starting Oral Anticoagulation)

Anticoagulants	eGFR<15 ml/min or ESRD on dialysis	eGFR 15-29 ml/min	eGFR 30-49 ml/min	eGFR ≥50 ml/min
DABIGATRAN	Not used	75mg BD	110mg BD	150mg BD
RIVAROXABAN	Not used	15mg OD	15mg OD	20 mg OD
APIXABAN	5mg BD (FDA with caution) provided the patient is on regular uncomplicated haemodialysis	2.5 mg BD	5 mg BD	5 mg BD
Duration: for 3 weeks after discharge. Continuation of oral anticoagulation to be decided by treating physician on case-to-case basis.				
<small>Source: Steffel J, Verhamme P, Potpara TS, et al. The 2018 European Heart Rhythm Association Practical Guide on the use of non-vitamin K antagonist oral anticoagulants in patients with atrial fibrillation. Eur Heart J. 2018;39(16):1330-1393.</small>				

Patient to be clinically assessed after 3 weeks, and continuation of oral anticoagulation to be decided by treating physician on case-to-case basis.

- **The total duration of Steroid use in management of COVID should be ideally not more than 7-10 days.**

No patient must be continued/ advised Steroids at the time of Discharge. (However, steroids can be given in patients in whom the indication is any pre-existing condition that requires therapy with steroid)

- Every patient must be counselled regarding the danger signs and use of medications at discharge.

Symptoms like Crusting/Discharge from nose, Blurred Vision, Proptosis, Double vision, Local pain on the cheek bone, One sided facial pain, numbness or swelling, Blackish discoloration over bridge of nose/palate/around the eye, Loss of sensation of the area around nose, Chest pain, Haemoptysis, Altered Mental State, Toothache, loosening of teeth, Intraoral pus discharge, Ulceration & Blackening of mucosa, Exposed palatal bone, Sinus tract, Sudden loss of vision must be compulsorily brought to the notice of concerned doctor.

Any of these symptoms in a patient who has recovered from COVID19 has to be evaluated for Mucormycosis as early evaluation and aggressive management forms the basis of successful treatment of Mucormycosis.

These patients must be evaluated by an ENT specialist at the earliest.

- Before Discharge of patients from home isolation, the following enquiries to be done by the tele-monitoring team.
 - Have you taken Oxygen during your home isolation?
If yes, through Cylinder or concentrator? Ask about the details from where they got it.
 - Have you used Oral steroids? If yes, which drug was used, for how long and dosage to be enquired.
 - Any other over-the-counter medication used or any AYUSH medications used may be noted.
 - Whether blood sugars were monitored during home isolation? And whether it under control?
 - what was the most recent blood sugar value? If possible, ask about charting of blood sugars if the patient has maintained.
 - If they have got any blood investigation by themselves, which were abnormal?
 - Are they taking any medication for any comorbid condition?
Make special note to ask for any immunomodulatory drugs/ steroids/ Iron Chelators like deferoxamine / Voriconazole/Fluconazole, etc.
- All patients >18 years, if not yet vaccinated, must be advised to get vaccinated after 3 months of discharge.

DISCHARGE SUMMARY

Name:

Age:

Sex:

SRF ID:

Date of Admission:

BU number:

Date of Discharge:

Phone Number:

Course in Hospital:

To be described right from presentation to hospital to time of discharge.

Any procedures done should be mentioned. Clinical progress should be mentioned.

Treatment received:

All the medications received along with duration must be mentioned.

Investigations:

Blood Investigations: CBC, LFT, RFT, SE, RBS, HbA1C, S. Ferritin, CRP levels, LDH, Troponin, D-Dimer, ABGs, Triglycerides, Procalcitonin.

Radiological Investigations: Chest Xray, HRCT thorax.

ECG, 2D-ECHO.

	Date **/**/2021	Date **/**/2021	Date **/**/2021			On the day of Discharge
Hb						
TC						
N/L/E/M/B						
Platelets						
D-Dimer						
LDH						
CRP						
Ferritin						
RFT						
LFT						
S/E						
RBS						
HbA1C						
Troponin						
Triglycerides						
Procalcitonin						
ABGs(pH/pCO2/pO2/ HCO3)						

Any other clinically relevant investigations to be added.

The investigations done 24 hours before discharge must be mentioned separately.

Vitals at Discharge:

Important to document the vitals at the time of discharge.

Advice on Discharge:

All medications as described in the guidelines above.

Any clinically indicated medications as appropriate.

All COVID appropriate behaviours must be mentioned.

Emergency Contact number of the hospital must be provided.