

STANDARD OPERATING PROCEDURE FOR COVID-19

- By department of General Medicine

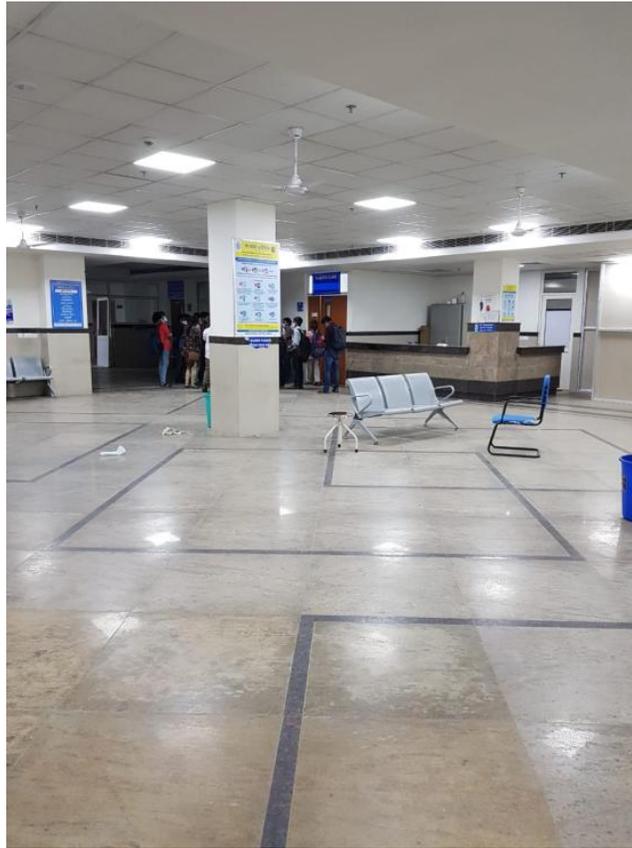
- ❖ Official order regarding closure of OPD and general ER for non-suspected COVID cases.
- ❖ Closure of general ER site and appointment of trained and dedicated security personnel there for referring non COVID cases to any other state medical college hospital.
- ❖ Closure of all medical college gates except gate 5 and gate 2.
- ❖ Deployment of security personnel at gate 5 for primary screening of suspected COVID vs non-COVID cases and referring non COVID cases to any other state medical college hospital.
- ❖ Proper notification to ER/MSVP when referring to medical college hospital.
- ❖ Control room to be created at medical college as well as at Swasthya Bhawan.
- ❖ Prevention of loitering at hospital premises by security personnel and police force.
- ❖ Ground floor of SSB to be converted into ER for dealing with suspected COVID cases.
- ❖ Entry point of doctors will be through small gate marked as "fever clinic".
- ❖ Entry point of patients will be through SSB OPD complex.
- ❖ There must be patient addressing system and IECs.

STATION 1:



- ❖ Suspected COVID cases coming to SSB(no patient parties to be allowed from this point on).
- ❖ Patient profile: patient with assistance vs without assistance.
- ❖ 24x7 provision of group D with PPE (shift duty to be arranged by administration)
- ❖ Work scope of group D:
 - I. Mask to be given to each patient not wearing any.
 - II. Accompanying patients needed assistance to station 2.

STATION 2:



- ❖ Staff pattern: 5 tables each containing one nurse and one intern doctor for each shift (6 hours shift, duty to be arranged by administration)
- ❖ Instruments to be supplied for each table: BP machine/ SpO2 probe/ non-contact thermalscanner/glucometer/oxygen cylinder/crash trolley with essential medication.
- ❖ Scope of work:
 - I. Check vitals: BP/ PR/ temperature/ SpO2.
 - II. Fill up the pro forma supplied in appendix 1.
 - III. Send the patients to station 3.
- ❖ Patients address and contact details have to be filled up in that pro forma for further tracing.
- ❖ Visual markings on floor to prevent clustering.
- ❖ Washrooms (male and female) and drinking water facilities to be provided for doctors/nurses.

STATION 3:



- ❖ Triage rooms: room no. G1 – G4
- ❖ Staff pattern: 1 medical officer + 4 PGTs [suggested: Orthopaedics, Dermatology, Psychiatry, Radiotherapy].
- ❖ Scope of work: triage to be done as per protocol given at appendix 2
 - Red: admit the patient directly to CCU
 - Yellow: admit the patient at isolation ward
 - Green: send the patient for home or hospital quarantine or simple advice (quarantine stamp to be issued)
- ❖ Donning and Doffing of ER personnel to be done at room no. G8, G9
- ❖ Admission unit to be decided by authorities.
- ❖ BHT rendering machine to be placed at SSB ground floor.

TRANSFERRING PATIENTS TO ISOLATION WARD/POSITIVE WARD/CCU:

- ❖ Specific passage to be demarcated and patients to be shifted by dedicated group D staffs with PPE by COVID 19 designated lifts
- ❖ There should be separate group D staff in to take the patient to lift, inside the lift, to take patient to respective ward.

ISOLATION WARD:

- ❖ Suggested site: 4th, 5th and 6th floor of SSB
- ❖ Shift: 6 hours
- ❖ Staff pattern: 2 nursing staff + 2 GDA + 1 scavenger + 1 doctor (for each floor in each shift)
- ❖ PGTs from suggested departments (general medicine, chest medicine, pharmacology, anatomy) to be posted there.
- ❖ Equipments: stethoscope, BP machine, SpO2 probe, CBG machine, Oxygen cylinder, Bi-pap machine, pen, paper.
- ❖ Scope of work:
 - Nursing staff: monitoring vitals 6 hourly, IV cannulation, administration of medication as per doctor's advice, general care.
 - GDA: general care (especially oxygenation) and shifting of patients as and when needed in CCU/positive ward/quarantine.
 - Scavengers: scavenging waste materials.
 - Doctors: twice daily round and emergency on call.
- ❖ Throat swab collection: to be done by doctors from Microbiology once daily at 1pm as per roster (roster to be provided by microbiology dept to administration)
- ❖ Collection of blood: to be done by technician from central laboratory once daily.
- ❖ Designated Doffing and Donning area with mirror and proper washing basins with elbow taps and washrooms. Allocations for observers at that area.
- ❖ Duty rooms for doctors with drinking water facilities.
- ❖ Treatment guideline as per Appendix 3
- ❖ Plan from mobilising patients from isolation ward:
 - I. COVID +ve: shift to Positive ward.
 - II. COVID -ve consecutive 2 times 24 hours apart:
 1. Patient stable: Discharge
 2. Patient symptomatic or coming out to be H1N1 positive or other medical ailments: shift to other state medical college hospital.

III. Shift the patient to the CCU if patient deteriorates and meets criteria for **RED** category described at appendix 2.

POSITIVE WARDS:

- ❖ Site: 8th and 9th floor of SSB
- ❖ Shift: 6 hours
- ❖ Staff pattern, shift, scope of work: same described under isolation ward.
- ❖ Designated Doffing and Donning area with mirror and proper washing basins with elbow taps and washrooms. Allocations for observers at that area.
- ❖ Duty rooms for doctors with drinking water facilities.
- ❖ Throat swab collection: to be done by doctors from Microbiology once daily at 1pm as per roster (roster to be provided by microbiology dept to administration)
- ❖ Collection of blood: to be done by technician from central laboratory once daily
- ❖ Treatment guideline as per Appendix 3
- ❖ Criteria for discharge:
 1. Consecutive 2 nasopharyngeal samples coming out to be negative for COVID19 (24hours apart)
 2. Patient is asymptomatic.

CCU:

- ❖ Site: 2nd floor SSB
- ❖ Shift: 6 hours
- ❖ Staff pattern: 2 doctors + 2 nursing staffs + 3 technicians + 2 GDAs + 2 scavengers (per shift)
- ❖ Designated Doffing and Donning area with mirror and proper washing basins with elbow taps and washrooms. Allocations for observers at that area

- ❖ PGTs from suggested departments (anaesthesia, chest medicine, cardiology, endocrinology, neuromedicine, gynae & obs, surgery etc) to be posted there.
 - Scope of work: Nursing staff: monitoring vitals 6 hourly, IV cannulation, administration of medication as per doctor's advice, general care.
 - GDA: general care and shifting of patients as and when needed.
 - Scavengers: scavenging waste materials.
 - Doctors: twice daily round and emergency on call, emergency procedures, ventilator management
- ❖ Patients will be stepped down to 'positive ward' if there is no RED flag situation
- ❖ Throat swab collection: to be done by doctors from Microbiology once daily at 1pm as per roster (roster to be provided by microbiology dept to administration)
- ❖ Collection of blood: to be done by technician from central laboratory once daily
- ❖ Treatment guideline as per Appendix 3.

GENERAL MEASURES

1. AIR DISINFECTION:

- ❖ Isolation and positive ward: Use laminar airflow, use UV lamps for 1 hour each time thrice daily
- ❖ CCU: negative air flow with HEPA filter
- ❖ NO provision of NEBULISATION to be done at ER or isolation and positive wards

2. Proper referral system to superspeciality and subspecialities through telecommunications.

3. Provision of proper system for Imaging like XRAY, Ultrasound, CT scan.

4. Patient information to be conveyed to patient party regularly at information desk.
5. Proper surveillance team monitoring the whole issues on regular basis.
6. Proper bio-medical waste handling to be done.
7. Periodic cleaning/housekeeping activity.
8. Proper instructions to be displayed at prominent locations.
9. Other emergency services like dialysis/blood bank services etc to be kept ready.
10. Reserved beds for health workers if affected.
11. Accommodation in hotels in single rooms with attached bathroom and proper amenities during quarantine.

APPENDIX 1

❖ Patient Information Sheet:

Name-

Place of residence-

Contact no-

Brought by –

1. _____

Contact no- _____

2. _____

Contact no- _____

3. _____

Contact no- _____

❖ **Check list of symptoms :**

- 1. Fever-_____days
- 2. Cough-_____days
- 3. SOB-_____days
- 4. Contact history within last 14 days
- 5. Travel history-
International-from_____
- Domestic-from_____
- 6. Referred from any hospital

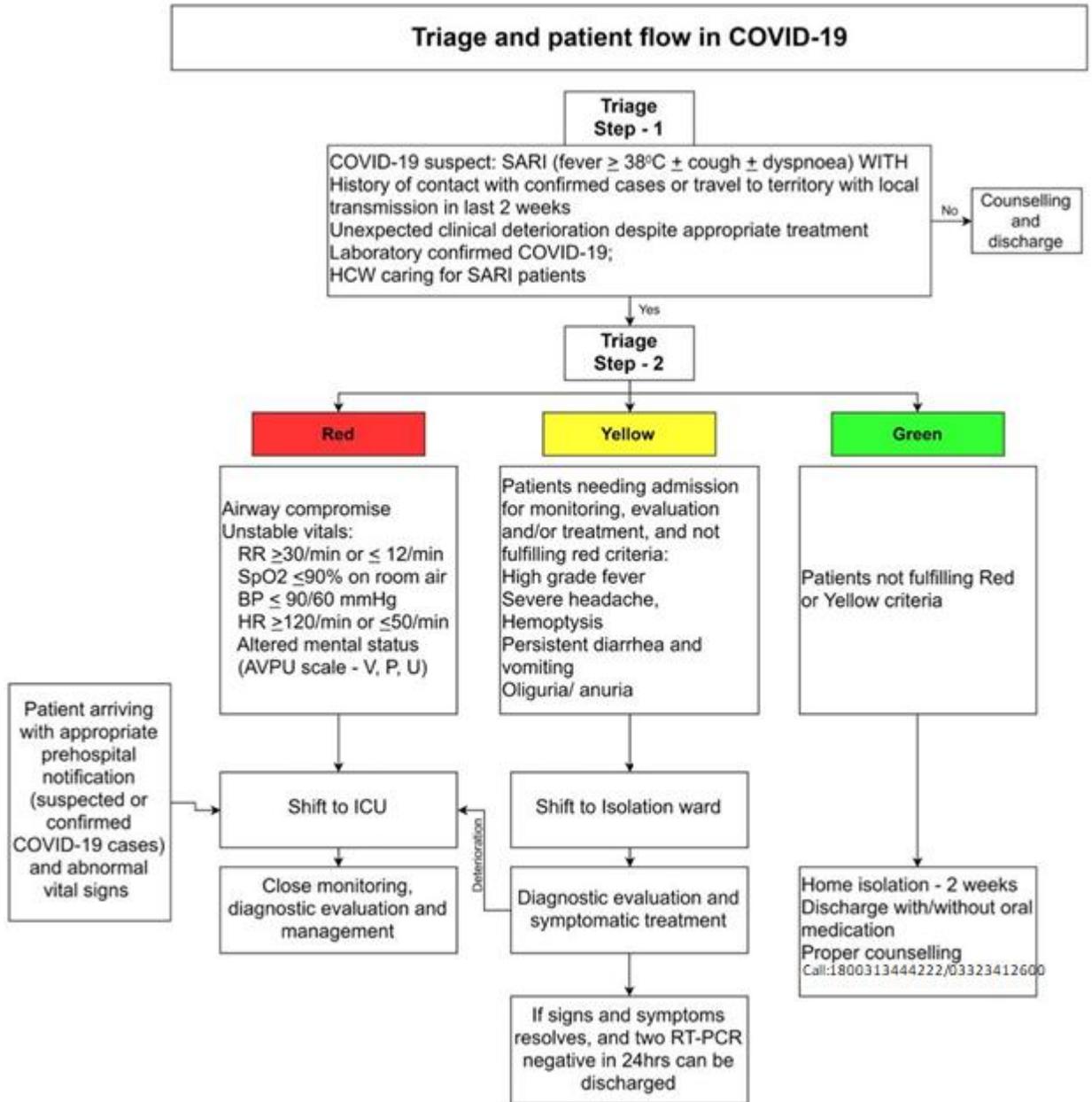
- 7. COVID 19 report- POSITIVE/NEGATIVE/NOT KNOWN

❖ **VITALS:**

1. Pulse-_____/min
2. Blood pressure-_____mm of Hg
3. Respiratory rate-_____/min
4. Saturation-_____%
5. Temperature-_____°F
6. CBG if patient has altered sensorium -_____mg/dl

APPENDIX 2

❖ CLASSIFICATION OF PATIENTS:



❖ TRIAGE:

GREEN: Home/hospital quarantine

YELLOW: Admission in isolation ward

RED: Admission in CCU

APPENDIX 3:

Management of Corona patients:

❖ Management of hypoxemic respiratory failure:

- Facemask with reservoir bag (flow rates of 10-15 L/min, which is typically the minimum flow required to maintain bag inflation; FiO₂ 0.60-0.95)
- High-flow nasal oxygen (HFNO) or non-invasive ventilation (NIV) should only be used in selected patients with hypoxemic respiratory failure.

Mild pneumonia

- Patient with pneumonia and no signs of severe pneumonia.

Severe Pneumonia

- Adolescent or adult: fever or suspected respiratory infection, plus one of
 - ❖ Respiratory rate >30 breaths/min,
 - ❖ Severe respiratory distress
 - ❖ SpO₂ <90% on room air
- Onset: new or worsening respiratory symptoms within one week of known clinical insult. Chest imaging (radiograph, CT scan, or lung ultrasound): bilateral opacities, not fully explained by effusions, lobar or lung collapse or nodules.
- Origin of edema: respiratory failure not fully explained by cardiac failure or fluid overload. Need objective assessment (e.g. echocardiography) to exclude hydrostatic cause of edema if no risk factor present.

❖ OXYGENATION:

Criteria:

- Mild ARDS: $200 \text{ mmHg} < \text{PaO}_2/\text{FiO}_2 \leq 300 \text{ mmHg}$ (with PEEP or CPAP $\geq 5 \text{ cmH}_2\text{O}$, or non-ventilated)
- Moderate ARDS: $100 \text{ mmHg} < \text{PaO}_2/\text{FiO}_2 \leq 200 \text{ mmHg}$ with PEEP $\geq 5 \text{ cmH}_2\text{O}$, or non-ventilated)
- Severe ARDS: $\text{PaO}_2/\text{FiO}_2 \leq 100 \text{ mmHg}$ with PEEP $\geq 5 \text{ cmH}_2\text{O}$, or non-ventilated)
- When PaO_2 is not available, $\text{SpO}_2/\text{FiO}_2 \leq 315$ suggests ARDS (including in non-ventilated patients)

Procedure:

- Bilevel NIV or CPAP $\geq 5 \text{ cmH}_2\text{O}$ via full face mask: $\text{PaO}_2/\text{FiO}_2 \leq 300 \text{ mmHg}$ or $\text{SpO}_2/\text{FiO}_2 \leq 264$
- Mild ARDS (invasively ventilated): $4 \leq \text{OI} < 8$ or $5 \leq \text{OSI} < 7.5$
- Moderate ARDS (invasively ventilated): $8 \leq \text{OI} < 16$ or $7.5 \leq \text{OSI} < 12.3$
- Severe ARDS (invasively ventilated): $\text{OI} \geq 16$ or $\text{OSI} \geq 12.3$

COVID-19 Management Protocol

