# ER MANAGEMEI for COVID19 RESPONSE in NEPAL

Drafted by medical and non-medical volunteers who are part of the Covid Alliance for Nepal, a civil society effort to support each other through this medical and public health crisis.



Reduce load on health system. Ensure only critically ill reach hospitals

COVID19 cases can be managed with HOME or INSTITUTIONAL Isolation. However, there are serious considerations that need to be taken in each of these tiers, and a combination of public awareness, procedures and robust management is critical to make it work

# HOME / SELF ISOLATION

#### MILD CASES.

Have a separate room to self-isolate and is supported by family. If need be, the local community / ward office can support, specially with procurement of supplies

If facility does not allow self isolation, move to Tier 2



FEVER less than 6 days No shortness of Breath RR<30 SpO2 (Oxygen Level) > 93%







# INSTITUTIONAL ISOLATION

#### MILD CASES.

Hotels, party palaces, open spaces set up to accomodate patients who cannot self isolate at home. Supported by local community but monitored by a connected medical team, on site or remotely.

Move to Surge Management Center if case turns Moderate

FEVER less than 6 days No shortness of Breath RR<30 SpO2 (Oxygen Level) > 93%

Low SpO2 (Oxygen Level)

< 93% consistently

Difficulty breathing





# SURGE MANAGEMENT CENTER



Specially prepared facility that has a clear medical support and is used as an annex to a hospital, fully supported by a trained team, and with clear upward and downward linkages to hospitals and expert medical help

Move to Hospitals when case turns Critical upon



# recommendation.

# COVID DEDICATED HOSPITALS

#### **CRITICAL / SEVERE CASES.**

If at any point there is deterioration in condition while admission or isolation in the surge center and for cases with severe clinical findings

Severe Tachypnea with RR > 30 Requirement >10L/m Supplemental O2 to maintain SpO2>=90%\* Altered Mental State Systolic BP<=90mmHg Clinically deteriorating Concern for other clinical syndromes

\*Severe COVID if >5I/min O2 required to maintain SpO2>90%



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# **GOAL**

Reduce load on health system. Ensure only critically ill reach hospitals

80%

COVID19 cases can be managed with HOME Isolation. However, there are serious considerations that need to be taken.

IMPORTANT CONSIDERATIONS

**CASE IS MILD** - You do not have Shortness of Breath. Fever has not gone over 6 days and Spo2 (oxygen) is over 93%

**SEPARATE ROOM** - You have a possibilty to self - isolate and can do it in a separate room



**SUPPORT** - You have support from family, staff at hotel, or friends for supplies - food, toiletries, medicine



**EQUIPMENT & MEDICATION** - Ideally, you have a thermometer, a pulse oxymeter, fever medication and painkillers.

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**COMMUNICATION** - you have access to communication. A phone with charge and credit, or can reach out easily!

# **BEST PRACTICES**



#### MONITOR

Check if you are short of breath, and if you have an oxymeter, measure and record twice a day. Check if you have fever, and if you do, monitor it. Take readings twice a day and record it.



#### HYDRATE AND FUEL

Drink lots of fluids and eat well. You will need the strength to fight off the infection.



#### **EXCERCISE**

Do some light stretching or small excercises. Helps in blood flow and to kill boredom.



#### **DO NOT STRESS**

Stress eats on your oxygen. Instead do some reading or catch up with friends online. Learn a new skill that does not involve you going out of your room.

# **SUPPORT**



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CASE IS MILD - Cases do not have Shortness of Breath. Fever has not gone over 6 days and Spo2 (oxygen) is over 93%

**SEPARATE ROOM** – Ideal to have separate room and toilet, so isolation is effective. Hotels might work in this case.

IMPORTANT CONSIDERATIONS



**SUPPORT & STAFFING** – Support mechanism are critical through volunteers, ward office etc. – food, toiletries, medicine



**EQUIPMENT & MEDICATION** - Need to be able to check fever and Oxygen levels, and have access to basic medication and painkillers.



**LINKAGES** - needs linkage to SURGE CENTERS, and possibility to quickly transfer cases when it turns moderate. Ideally also connection with medical professionals on tele Consultation

# **IMPORTANT**

WHO IS THIS FOR? This option is good if a large family at home, high risk individuals living in the family, or lack of physical space to self-isolate makes it nescessary to get people to this facility.

**NO OXYGEN** There will be no oxygen provided at these facilities. Only supportive medication, food and space for isolation will be available.

**TELECONSULTATION** is critical unless medical teams are on standby, so cases who turn from mild to moderae

are moved out immediately to the surge center or to the hospital, as recommended

**LINKAGES** to surge centers and hospitals and means to move the patients there critical.

FINANCE required to feed, clean, take care of staff and volunteers.

# **Next Steps**



http://bit.ly/IsolationCenterGuide

## **GUIDING WORKSHEET -**

Download a BLUEPRINT worksheet that lists out all the requirements based on these considerations. Go through them with your team, and work out each element.



CONFIRM YOU CAN FULFIL
REQUIREMENTS - Once you have
gone through this Blueprint and are
convinced you can fulfill the criteria
and requirements, please download
the excel sheet that will guide you to
make projections based on the size
you envison your local center to be.

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This is meant to be a **starting point** so that you can work with your team and advocate for isolation centers/surge management centers in your local area, with a **solid sense of the materials and infrastructure** would be, at base, necessary for the set-up and maintenace of the center.

While Isolation Centers or Surge Management Centers are not fullyfledged hospitals, certain criteria has to be fulfilled for effective management.

They are important for patient management and follow-up, and require consistency.

GUIDELINES & PROTOCOLS - Must have detailed care guidelines (Admission, treamtment, Discharge etc.)

**LINKAGES** - Clear connection with **hospitals** so patients who need it can be admitted and have the means to get the patients there.

**STAFFING** - Trained and semi-trained personnel in shifts that cover the entire 24 hours

IMPORTANT

CONSIDERATIONS

LOGISTICS - Beds, equipment, vehicles, medicine, food and other requirements

FINANCE - Good financial backup to ensure that continuity is there through the crisis

**PATIENT EDUCATION** - One one by trained expert before discharge

**DOCUMENTATION** - Contact Sheets, Daily Medical Documentation of Patients

# NEXT STEPS



http://bit.ly/SurgeCenterGuide

**GUIDING WORKSHEET** - Download a BLUEPRINT worksheet that lists out all the requirements based on these considerations. Go through them with your team, and work out each element.



**CONFIRM YOU CAN FULFIL REQUIREMENTS** – Once you have gone through this Blueprint and are convinced you can fulfill the criteria and requirements, please download the excel sheet that will guide you to make projections based on the size you envison your local center to be.



**PROJECTION & BUDGETS** - make a clear projection based on this BLUEPRINT that will help make budget and requirements projections based on the size you envison your local center to be.

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# **GUIDELINES & PROTOCOLS**

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#### ADMISSION EXCLUSION CRITERIA

- O2 requirement: > 5L NC
- High risk patients as per clinical judgment by medical officer in triage
- Pregnant in the 2nd or 3rd trimester



#### **ADMISSION INCLUSION CRITERIA**

- O2 requirement: <5L/m NC (80% of max allowed)
- Other emergent conditions ruled out clinically (on-site vs. teletriage)
- Ability to procure and administer their own home medication
- Signed consent form by admitting party and family





#### TRANSFER CRITERIA to COVID HOSPITAL

Persistent clinical/respiratory deterioration as defined by the following:

- 1.Requiring > 5L/m of supplemental O2\*
- 2.Increment in O2 requirement by more than 3 L/m every hour
- 3. Respiratory distress with fatigue (persistent tachypnea with fatigue)
- 4.Not tolerating PO nutrition after 2 treatments of antinausea medication
- 5. Clinical concern for other conditions including PE, acute chest syndrome, stroke, sepsis, shock (defined by persistent BP <90 sbp after fluid resuscitation), and other conditions based on clinical judgment
- 6. Deterioration in mental status

\*Severe COVID if >=5I/min O2 needed to maintain SpO2>=90% (NMC Guideline)

#### **DISCHARGE CRITERIA**

- Not requiring any supplemental O2 for > 24 hours with O2 saturation > 93%
- Able to ambulate without oxygen support, and O2 saturation > 93%
- Improvement based on clinical judgment and physical exam
- No negative RT-PCR test required to meet discharge criteria
- Discharge planning and education completed one on one by medical officer and nurse

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# **GUIDELINES & PROTOCOLS**

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### MEDICATION PROTOCOL

#### All Patients:

- Zinc, 40 mg daily
- Vitamin D3 1000 IU daily Vitamin C, 1 tab daily
- Ibuprofen/Paracetamol q6 hrs PRN for fever and
- Anticoagulation (Enoxaparin, Unfractionated Heparin, etc) unless contraindicated
- Inhaled steroid if SpO2 93-94% (Budesonide 800mcg BD, stop once symptoms resolve)

Patients needing supplemental oxygen Add:

Dexamethasone Oral/IV 6 mg once a day for 10 days (if 6 not available, give 8 mg) If Dexamethasone is not available, below are

- equivalent treatment (daily): • Prednisone 40 mg (Oral)
- Methylprednisolone 32 mg (IV)

#### TRANSFER PROTOCOL

- As soon as transfer necessity is noted, please contact focal person from the hotline (Viber)
- Keep patient on reservoir mask at 15L while awaiting ambulance transport
- Prone deteoriting patient while awaiting transfer
- If airway deterioration is severe, maintain oxygenation with BVM (with all staff in appropriate PPE). Intubation and advanced airway management will not be done in the isolation center.

## TREATING FEVER

-Paracetamol Oral 500 mg q6 hours SOS (max 4000 mg daily)

#### Second line:

- -Ibuprofen Oral 800 mg q6hr SOS
- If unable to control fever, then consider following
- Paracetamol 500 mg, 4 hours later, Ibuprofen 600 mg, 4 hours later, Paracetamol 500 mg, etc.
- \*\*\*Do not exceed 4000mg of Paracetamol per 24

## REQUIRED SUPPORTIVE TREATMENT

- Respiratory therapy 2 times a day, and Incentive Spirometry every 2 hours (nursing-led)
- Daily proning of patients
- Physical therapy prior to discharge (tele vs. inperson)
- Mental health counseling to be done once during the admission (telehealth) -Discharge planning and education to be done before discharge
- Daily updates to family members to be provided by medical officer

## DAILY DOCUMENTATION REQUIREMENT

- Medical Officer to write a admission H&P of patient
- Medical Officer to document daily progress note (SOAP)
- Nursing to document daily vitals
- Transfer/Discharge sheet to be filled by MO and Nursing to send with the patient with information on treatment, assessment, and plan.

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