Disaster Preparedness and Response Plan

METHINKOT HOSPITAL

Introduction

Methinkot Hospital is located in Namobuddha Municipality-04, Kavrepalanchok district which comes under the Bagmati Province. It is around 50 km far from the capital Kathmandu. The total area of the district is 1,396 sq. km. The district occupies 0.94% of total area of the country. It has 13 Municipalities out of which are urban municipalities and 7 are rural municipalities. Dhulikhel is the head quarter of this district. The district covers 6.87% land mass of Bagmati Province and is bordered by Sindhuli, Bhaktapur, Ramechhap, Lalitpur, Kathmandu and
Sindhupalchok. Politically the district is divided into 2 electoral constituencies. Methinkot Hospital is situated in Namobuddha Municipality, ward no.4. It lies near the headquarter of Kavrepalanchok district, Dhulikhel. Its area is around 8 Ropanis. This hospital was first established as a Primary Health Care Centre (PHCC) in 2054 B.S. Later, in 2066 B.S. it was named as a 15 bedded District hospital. In 2077 BS the hospital was up graded to 50 bedded Provincial District Hospital.

Disaster Management Committee (Executive Committee)

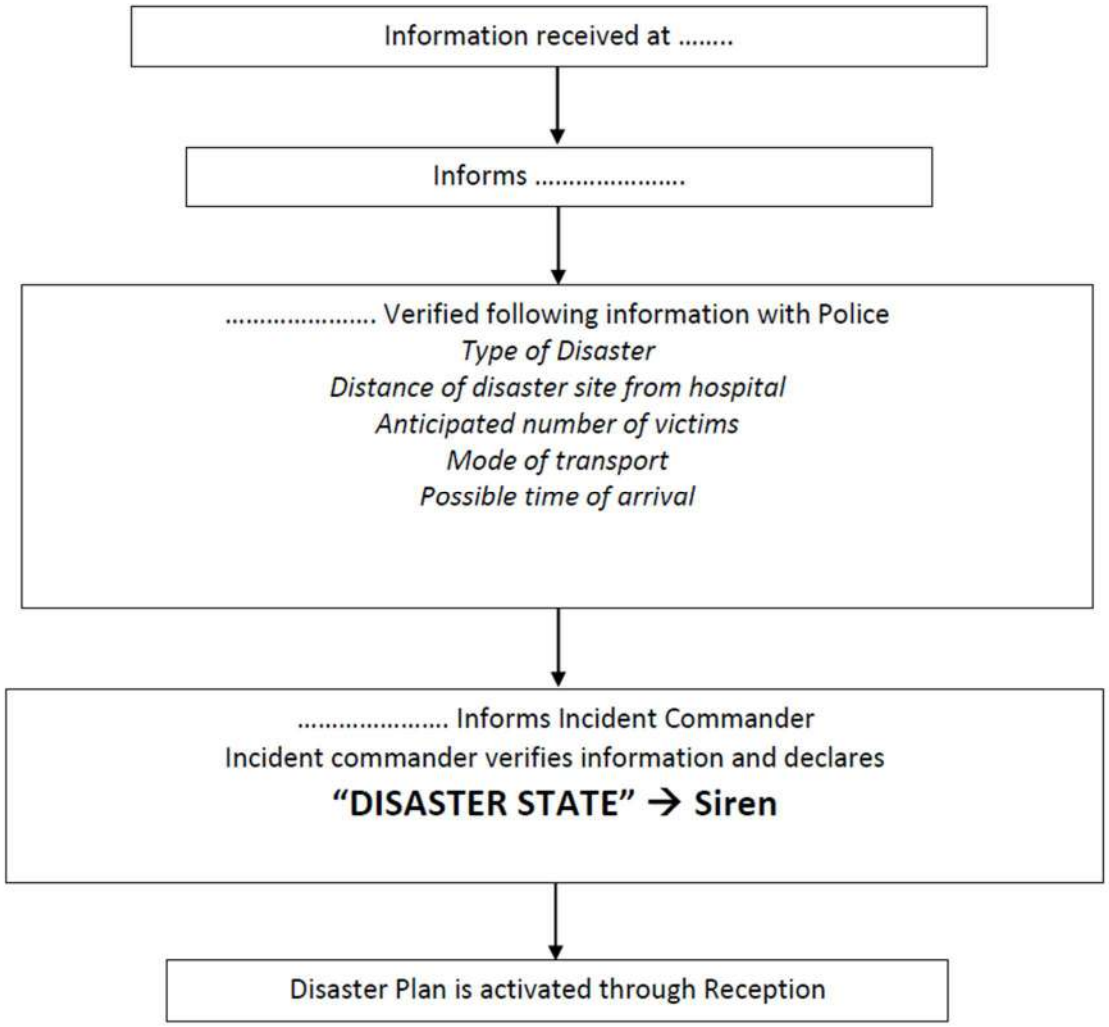
EXECUTIVE DIRECTOR

Act. Me.Su.: DR. Madhukar Dahal

HEAD OF DEPARTMENTS

I.	ANESTHESIA	: DR.
II.	DERMATOLOGY	: DR.
III.	DENTAL	: DR. Pratistha Ghimire
IV.	EMERGENCY	: DR. Nischal Ghimire
V.	ENT	: DR.
VI.	GYNAE/ OBS	: DR. Dr. Madhukar Dahal
VII.	MEDICINE	: DR. Sanjeev Joshi
VIII.	ORTHOPEDICS	: DR. Subin Banjankar
IX.	PATHOLOGY	: DR.
X.	PEDIADTRICS	: DR.
XI.	PSYCHIATRICS	: DR. Dr. Pratistha Ghimire
XII.	RADIOLOGY	: DR.
XIII.	SURGERY	: DR. Mukesh Jaiswar

Disaster Committee (Preparedness Committee)


Information received at .....
Informs .....
..... Verified following information with Police
Type of Disaster
Distance of disaster site from hospital
Anticipated number of victims
Mode of transport
Possible time of arrival
..... Informs Incident Commander
Incident commander verifies information and declares
"DISASTER STATE" → Siren
Disaster Plan is activated through Reception

BRIEF DISASTER INSTRUCTIONS

- **DISASTER OVERSEER** e.g.: hospital director declare disaster once conformed→ Siren
- **All staff** are alerted and moved to their responsible areas
- **SECURITYS** are mobilized
- Waiting area of OPD are emptied, wait outside or sent home as decision of Disaster Overseer
- **OPERATION THEATER, XRAY AND LAB**, stop normal functioning, clear waiting areas until otherwise directed.
- **Radiology**- only priority work done- X-ray C spine, chest, pelvis
- **LAB**- Hb blood grouping and save sample for later, communicate with blood bank
- **WARDS** – noncritical patients are discharged starting with fittest
- **Administrative staff** – in each area one staff RED, YELLOW, GREEN.
- Communicate with security, HA, Helpers, store, transport, blood bank, pharmacy, police, press.
- **CLINICAL DIREECTORS EG HOD/ senior faculty family medicine and emergency** manages decision making about casualties from the TRIAGE Desk, just outside the front door of the emergency.
- **TRIAGE**- takes place in front of the main gate of Emergency
    - RED- FOR CRITICALLY INJURED- MAIN AREA OF EMERGENCY
    - YELLOW- FOR SEMICRITICAL AREA- GENERAL AREA OF MAIN AREA
    - GREEN- FOR WALKING WOUNDED AND CASES THAT CAN WAIT WITH MINOR FIRST AID- WAITING AREA OF OPDS
    - BLACK- DESEASED – MOVE TO MOUTURY OR IN INNER WAITING SPACE OF EMERGENCY

- Existing patient in emergency- move to observation and to respected ward or send home.
- Medical and nursing consultants move to respected areas to manage under direction of disaster overseer
- Units who are on call 9 normally taking patients from emergency that day) report to emergency once siren is on
    - **SURGERY, ORTHOPAEDICS, ANESTHESIA, ENT, DENTAL** will be deployed between RED and Yellow area, in ration 2:1 initially
    - Team of 1- 2 HO/ consultant+ 1-2 nurse/ HA for each RED case
    - Team of 1 HO/ consultant+ 1 nurse/ HA for each YELLOW case
    - Team of 1 HO/ consultant+ 1 nurse/ HA for each 5 GREEN Case
      HA/ Sisters from dressing room to be mobilized
      Procedure room under faculty/ senior HA.
      OPD staffs to assist in green area cases/ in ORTHO procedures.
- Another group of surgeon or orthopedics will move the patient to emergency OT or admit to ward and discharge if possible.
- **MED, PAED, PSYCH, EYE, GYE/OBS** WILL ASSIST IN GREEN AREA
- Units not on call for the day
    - To report to own ward- priority list for discharge and patient movement
    - To assist the on call unit ward including discharge, transfer, and receiving the casualties
    - Surgical specialist to be ready for OT duties
    - Other deployed by the department seniors to GREEN AREA

Check list of equipment needed at command center

The following equipment will be required for both in hospital (administrative director room or nearby
meeting room)

- Land line
- Mobile phone
- Radio and television
- Maps
- Charts and white boards
- Emergency power
- Water
- Flip charts and pens
- Plans – disaster management plan
- Security
- Phone numbers of hospitals
- Messengers

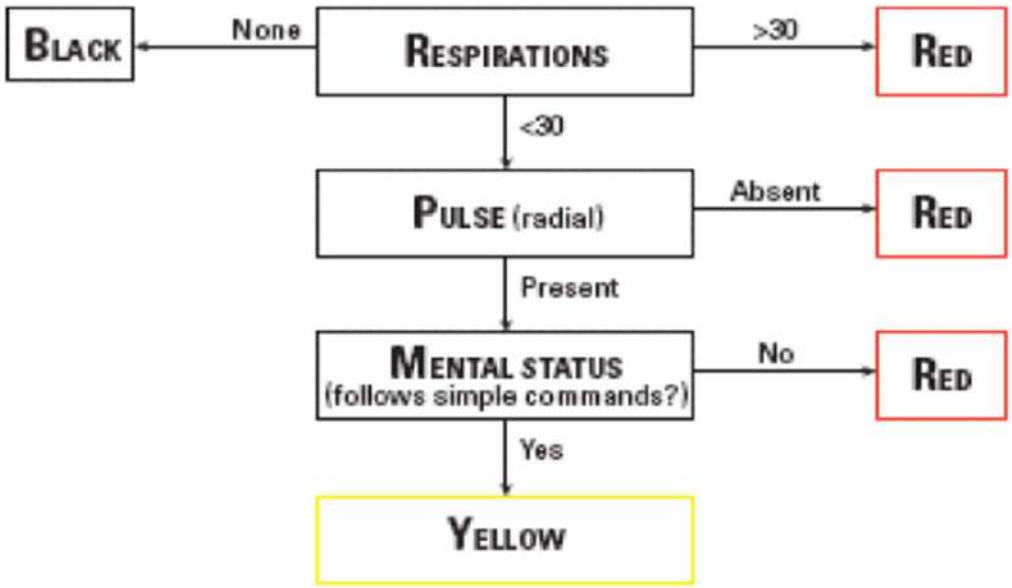
Triage category

Category	Classification
Red	Immediate care (life in danger)
Yellow	Delayed care (serious, but life not in danger)
Green	Minimal care (“walking wounded) (cuts and bruises
Black	Dead on arrival

START Triage

Walking wounded are directed to go to treatment area. (All are triaged as Green.)

Those unable to walk are assessed by the "RPM" method:



Important:

Once any RED criteria are met, tag patient and MOVE ON!
Triage is sorting, not treatment. Only 2 interventions may be made during triage:
1) Open/clear airway.
2) Apply direct pressure to major bleeding sites.
Patients will be reassessed at treatment area(s).

Method of triaging

Start (Simple Triage and Rapid Treatment)

This allows the triaging personnel to triage the victims in sixty seconds or less. This is done by assessing
respiration, perfusion and mental status.

Steps:

1. Asses the patient for ventilatory rate and adequacy of respiration. If the victim is not breathing,
check for foreign bodies causing airway obstruction. Do a chin lift or jaw thrust. If this does not
initiate ventilatory effect, tag black. If respiratory rate is more than 30 per minute, tag red. If
respiratory rate is less than 30, do not tag yet, but asses for perfusion.

2. Assess capillary refill for perfusion by pressing nail bed or lips and release. Colour should return in
less than two seconds. If capillary refill is more than two seconds, tag red. If capillary refill is normal, do not tag yet but assess for mental status. If there is obvious external bleeding, control hemorrhage
by pressure.

If capillary refill is difficult to access because of dark room or nail polish, then:

Feel the Radial pulse, if absent – tag Red or if present, do not tag yet.

3. Use simple command to assess the mental status like 'open and close your eyes' or 'squeeze my
fingers'. If patient is not responding to these commands, tag red. If patient responds well, tag yellow.

4. Patients who have only minor injuries (walking wounded) should be tagged green.

However

TRIAGE IN EPIDEMICS

As mentioned previously, exact screening protocols may vary depending on the nature of the epidemic and its principle symptoms and etiology. However, many epidemic illness have vague or overlapping symptoms.
During the initial phases of an epidemic when the specific etiology is unknown, it may be difficult to
differentiate an illness based on symptoms alone. However, the most likely epidemics will involve primarily either respiratory or gastrointestinal symptoms and transmission.

Triage during primary respiratory illness

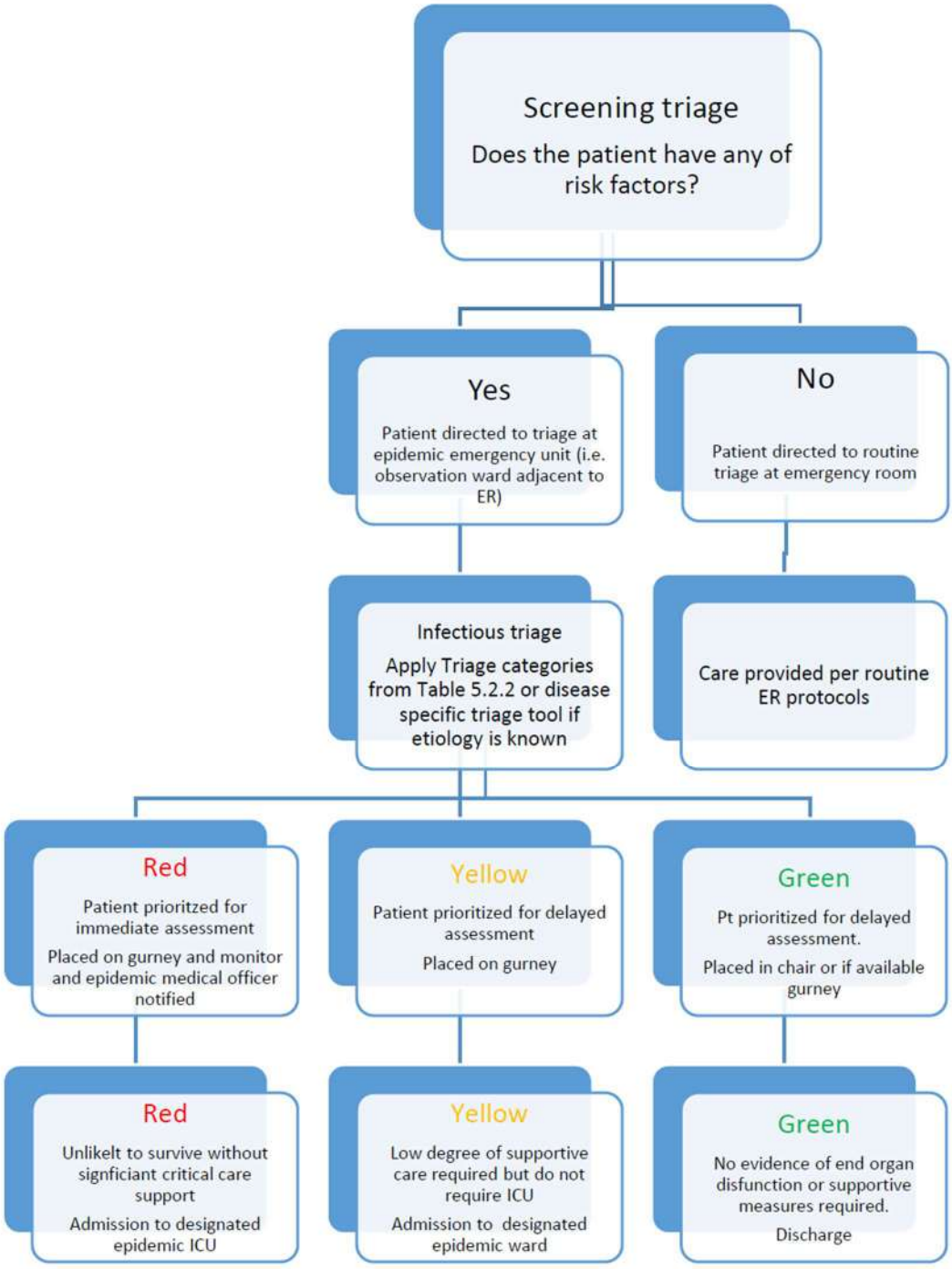
- Respiratory illnesses that may constitute a public health emergency of national concern in Nepal
include but are not limited to the following: Severe acute respiratory syndrome coronavirus (SARS),
influenza, pneumonic plague, Middle East Respiratory Syndrome coronavirus (MERS), or other novel
acute respiratory infections.
- During initial phase of epidemic, the infectious agent may be unknown. However, often there will
have been outbreaks of epidemic in other locations in Nepal or other countries, which can guide the
evaluation.

Screening for respiratory epidemic risk factors at initial presentation should include the following:

- Fever and
- Cough or shortness of breath and
- Travel to a region with a known ongoing respiratory epidemic or

- Contact with known diagnosis of epidemic respiratory infection

• Isolation and infectious precautions should be followed to the extent possible at all times.



Triage during primary gastrointestinal illness

- Gastrointestinal illnesses that may constitute a public health emergency of national concern in Nepal include but are not limited to the following: vibrio cholera, salmonella typhi, entameba histolitica, norovirus, shigella species, escherichia coli, or other novel GI infectious agent.
- During initial phase of epidemic, the infectious agent may be unknown. However, often their will have been outbreaks of epidemic in other locations in Nepal or other countries, which can guide the evaluation.

- Screening for gastrointestinal epidemic risk factors at initial triage should include the following:
  - Diarrhea >3 loose stools per day (bloody or “rice-water”) and
  - Fever, vomiting, or abdominal pain
  - Travel to a region with a known ongoing gastrointestinal epidemic or
  - Close contact with known diagnosis of epidemic gastrointestinal infection

- Isolation and infectious precautions should be followed to the extent possible at all times.

Triage during hemorrhagic fever

- While the likelihood of an infectious hemorrhagic fever occurring as an epidemic in Nepal is very low compared to other infectious epidemics, diseases such as Ebola Hemorrhagic Virus (EHV) require special planning and precautions compared to other outbreaks.
- When there are public health warnings indicating an increased risk of encountering EHV in the hospital, safeguards should be implemented prior to disaster activation. Once a patient with EHV has presented to the ER, the epidemic disaster plan should be activated.
- First, immediately upon a person's entrance to the ED, or in advance of entry if possible (such as at screening triage), a relevant exposure history should be taken including exposure criteria of whether the patient has traveled internationally or had contact with an individual with EHV within the previous 21 days. Because the signs and symptoms of EHV may be nonspecific and are present in other infectious and noninfectious conditions that are more frequently encountered in the United States, relevant exposure history should be first elicited to determine whether EHV should be considered further. If the patient is unable to provide history due to clinical condition or other communication barrier, history should be elicited from the next most reliable source (family, friend, etc.).
- Patients who meet the exposure criteria should be further questioned regarding the presence of signs or symptoms compatible with EHV. These include:

- Fever (subjective or ≥100.4°F or 38.0°C) or
- Headache, fatigue, weakness, muscle pain, vomiting, diarrhea, abdominal pain, or
- Hemorrhage (bleeding gums, blood in urine, nose bleeds, coffee ground emesis or melena).

• All patients should be routinely managed using precautions to prevent any contact with blood or body fluids. If an exposure history is unavailable, clinical judgment should be used to determine whether to empirically implement the following protocol. If a relevant exposure history is reported and signs or symptoms consistent with EVD are present, the following measures should be implemented IMMEDIATELY:

- If possible, isolate the patient in a private room or separate enclosed area with private bathroom or covered, bedside commode and adhere to procedures and precautions designed to prevent transmission by direct or indirect contact (dedicated equipment, hand hygiene, and restricted patient movement). Because there are very limited areas for isolated patient care rooms in Methinkot Provincial Hospital's emergency department, if a patient has already presented in the ER they should be placed in the obstetrics room or the call room in order to isolate them from other patients until a designated EHV treatment area has been established. As soon as possible, these patients should be moved out of the ER to a separate treatment area.

- If the patient is arriving by EMS transport, the ER should be prepared to receive the patient in

a designated area (away from other patients) and have a process in place for safely
transporting the patient on the stretcher to the isolation area with minimal contact with nonessential
healthcare workers or the public.
- As soon as it can be cleared of active patients, the private clinic area across from the outpatient
pharmacy windows should be designated for EHV victims. EHV patients should be moved to this
area and placed in isolation until transfer to a designated Ebola treatment center can be arranged.
- Members of a designated EHV treatment team should receive training in advance in caring for
victims of EHV. Once the epidemic disaster plan has been implemented for an outbreak of
hemorrhagic fever, this EHV care team should be activated to provide care for these patients. Staff
without such training should not provide care for EHV victims or enter EHV care areas.

- Notify the Hospital Infection Control Program and other appropriate staff and report to the relevant
local health department immediately of patients with EVD exposure history regardless of symptoms.

The above steps are only a temporary measure until coordination with public health authorities can
establish a designated Ebola treatment center and the victims can be transferred safely to these
centers for definitive care.

Treatment area

Category	Treatment area	Area in charge	Staffing From (Doctors and Nurse)
Triage			
Red			
Yellow			
Green			
Black			

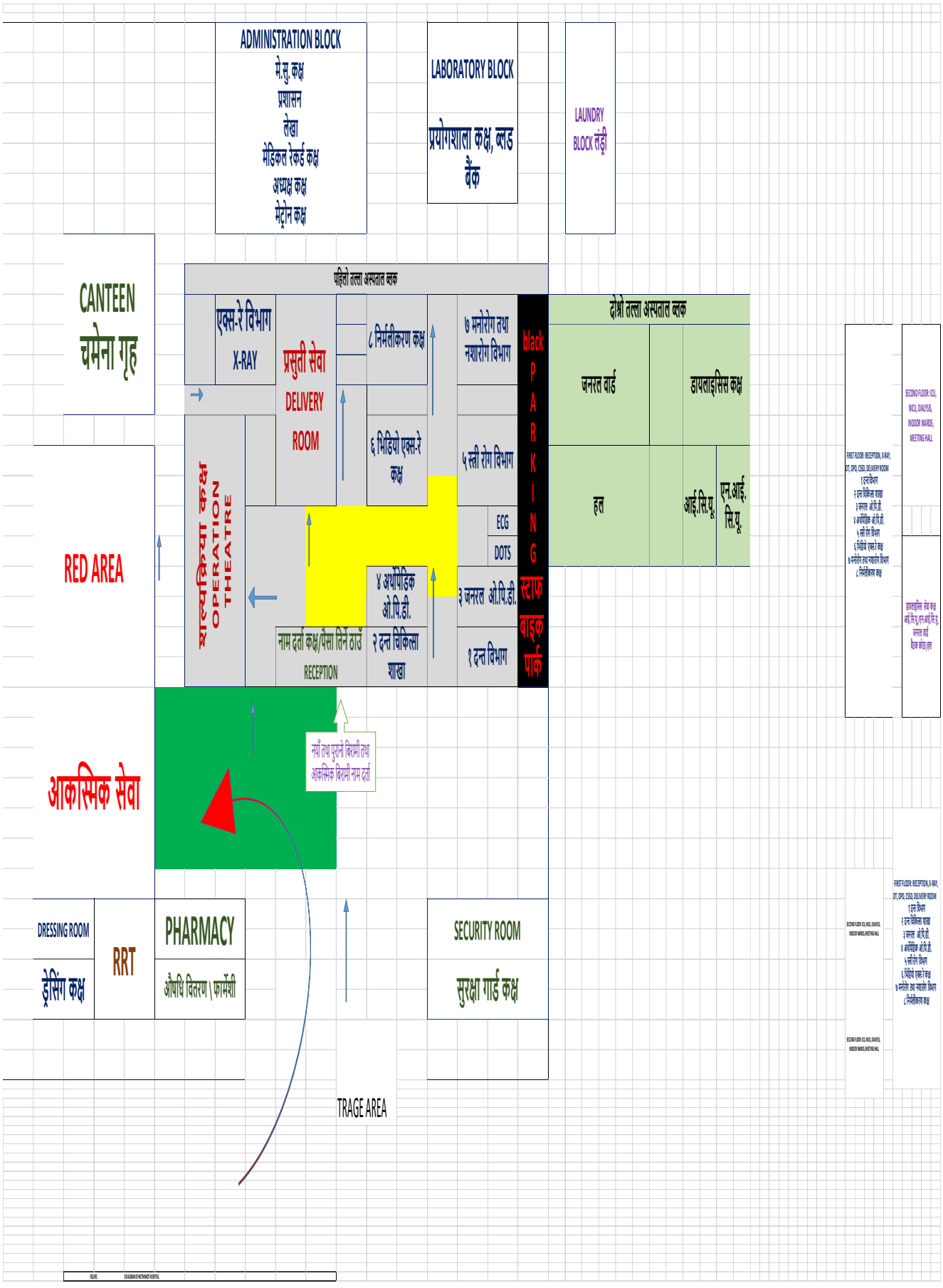
* **It is important to note that during disasters, <u>all the routine investigations are stopped except:</u>**
    * **X- ray trauma series: Lateral cervical, Chest and Pelvis**
    * **Blood Grouping and Cross matching**
    * **Random Blood Sugar**
    * **USG**
    * **CT scan (if required)**
    * **IT IS OF UTMOST IMPORTANCE TO RETRIAGE THE PATIENTS FREQUENTLY**

Conditions for referral of patients

Some Victims are also referred to the higher centers for t/t of more specialized injuries

- **Cardiovascular injuries**
- **Head and neurological (spine) injuries**

Once definite care is given and patients is stable, they are shifted to designated department for specific treatment.


ADMINISTRATION BLOCK
मे.सु. कक्ष
प्रशासन
लेखा
मेडिकल रेकर्ड कक्ष
अध्यक्ष कक्ष
मेट्रोन कक्ष
LABORATORY BLOCK
प्रयोगशाला कक्ष, ब्लड बैंक
LAUNDRY BLOCK लांड्री
CANTEEN
चमेना गृह
पहिलो तल्ला अस्पताल ब्लक
दोश्रो तल्ला अस्पताल ब्लक
एक्स-रे विभाग
X-RAY
प्रसुती सेवा
DELIVERY ROOM
८ निर्मलीकरण कक्ष
७ मनोरोग तथा नशारोग विभाग
६ भिडियो एक्स-रे कक्ष
५ स्त्री रोग विभाग
जनरल वार्ड
डायलाइसिस कक्ष
हल
आई.सि.यू.
एन.आई.सि.यू.
black PARKING स्टाफ बाइक पार्क
RED AREA
शल्यक्रिया कक्ष
OPERATION THEATRE
ECG
DOTS
४ अर्थोपेडिक ओ.पि.डी.
३ जनरल ओ.पि.डी.
नाम दर्ता कक्ष/पैसा तिर्ने ठाउँ
RECEPTION
२ दन्त चिकित्सा शाखा
१ दन्त विभाग
FIRST FLOOR: RECEPTION, X-RAY, OT, OPD, CSSD, DELIVERY ROOM
१ दन्त विभाग
२ दन्त चिकित्सा शाखा
३ जनरल ओ.पि.डी.
४ अर्थोपेडिक ओ.पि.डी.
५ स्त्री रोग विभाग
६ भिडियो एक्स-रे कक्ष
७ निर्मलीकरण कक्ष
८ मनोरोग तथा नशारोग विभाग
SECOND FLOOR: ICU, NICU, DIALYSIS, INDOOR WARDS, MEETING HALL
डायलाइसिस सेवा कक्ष आई.सि.यू./एन.आई.सि.यू. वस्तात वार्ड मेडिकल कलेज/हल
आकस्मिक सेवा
नयाँ तथा पुराना बिरामी तथा आकस्मिक बिरामी नाम दर्ता
DRESSING ROOM
ड्रेसिंग कक्ष
RRT
PHARMACY
औषधि वितरण \ फार्मेसी
SECURITY ROOM
सुरक्षा गार्ड कक्ष
TRAGE AREA


पार्श्वचित्र
ADMINISTRATION BLOCK
प्र.सु. कक्ष
प्रशासन
लेखा
मेडिकल रेकर्ड कक्ष
अध्यक्ष कक्ष
मेट्रोन कक्ष
LABORATORY BLOCK
प्रयोगशाला कक्ष, ब्लड बैंक
LAUNDRY BLOCK लड्री
CANTEEN
चमेना गृह
पहिलो तल्ला अस्पताल ब्लक
एक्स-रे विभाग X-RAY
प्रसुती सेवा DELIVERY ROOM
८ निर्मलीकरण कक्ष
६ मिडियो एक्स-रे कक्ष
७ मनोरोग तथा नशारोग विभाग
५ स्त्री रोग विभाग
ECG
DOTS
PARKING स्टाफ बाइक पार्क
दोस्रो तल्ला अस्पताल ब्लक
जनरल वार्ड
डायलाइसिस कक्ष
हल
आई.सि.यू.
एन.आई. सि.यू.
EMERGENCY
शल्यक्रिया कक्ष OPERATION THEATRE
४ अर्थोपेडिक ओ.पि.डी.
३ जनरल ओ.पि.डी.
२ दन्त चिकित्सा शाखा
१ दन्त विभाग
नाम दर्ता कक्ष/पैसा तिर्ने ठाउँ RECEPTION
आकस्मिक सेवा
नर्सा तथा भुल्ने बिरामी तथा आकस्मिक बिरामी नाम दर्ता कक्ष / पैसा तिर्ने ठाउँ
DRESSING ROOM
ड्रेसिंग कक्ष
RRT
PHARMACY
औषधि वितरण \ फार्मेसी
SECURITY ROOM
सुरक्षा गार्ड कक्ष
बागमती प्रदेश सरकार
स्वास्थ्य मन्त्रालय
स्वास्थ्य निर्देशनालय
मेशिनकोट अस्पताल
भकुण्डेबेशी, काभ्रे
०११-४०४०२४