

STANDARD OPERATING PROCEDURE

Department of Health and Family Welfare
Uttarakhand



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1. Context

Uttarakhand is vulnerable to natural and man-made disasters. Health facilities and services are often affected in the event of disasters. In such a situation, protective measures such as activities related to pre, during and post disaster must be updated after review. This can reduce the effects/losses caused by the disaster and can help taking quick action during the incident. The department conducts periodic meetings and workshops with senior officers and medical units at state and district level and issues guidelines accordingly in order to deal with various disasters. The **Standard Operating Procedures (SOP)** of the Health department is made of arranging these guidelines, so that the health facilities can be delivered to people in different phase of disaster in a more accessible way.

2. Objective

The following are the objectives of Standard Operating Procedures:

- To develop the clarity and responsibilities among all the units from state to village level considering the departmental Disaster Management Plan.
- To provide systematic and quick treatment / medical facilities to the affected during the disasters
- To prevent the manifestation of epidemics after disasters

3. Pre-disaster Actions

The following activities are undertaken by the department under the preparatory action:

3.1 Determination of institutional role and responsibilities

- Under the Incident Response System, the Disaster Management Group will be constituted from state to the block level for quick and effective response. At state level, the Director-General (Health Services) Medical Unit Leader and Additional Director (Health) will be the Nodal Officer whereas commissioners of Kumayu and Garhwal division will be the nodal officer of division. Chief Medical Officer and Deputy Chief Medical Officer will be the Nodal Officer of Disaster Management Group at district and block level respectively. These disaster management groups from state to block level will be revived at state level under the chairmanship of the DG (Health Service) and at district level in the chairmanship of Chief Medical Officer at every year.
- Departmental Nodal officer at the district level (District Chief Medical Officer / Additional Chief Medical Officer) and Medical Officer In-charge at the block level will compile the list of all the doctors, women doctors, Para-medical staff and other staff, including their phone numbers by the month of May. The final list will be sent to the Deputy Director (Health) at the state level through Chief Medical Officer in order to establish immediate contacts in case of any event of disaster. Also, the Nodal officer at the state level will establish coordination among Deputy Director (Health), Indian Medical Association, and Military Hospital located in the state.
- For effective and rapid action during the disaster, District Chief Medical Officer will mark the members at the district and block level for the formation of Rapid Response Team by the month of March. In this group, there will be an osteopathic specialist, a physician, a pharmacist and a Ward boy and other Doctors will be involved as needed. Vehicle and Drivers will also be marked for Rapid Response Team. It will be directed to the Rapid Response Team that they always get ready with their entire resources (primary treatment kits), essential medicines, stretcher, trolley beds, prioritizing the injured; red (first priority), green (second priority), yellow (third priority) and black (Dead bodies) with color tags.

3.2 Risk Assessment

- The most sensitive development blocks/areas of most sensitive districts will be identified by the month of March. For this purpose, Nodal officer of State Disaster at the State level (Deputy Director Health) and at the district level, Chief Medical Officer will be responsible. Additionally, Director of Garhwal and Kumayu divisions will be divisional nodal officer.
- During disaster, District Disaster Nodal Officer will identify the alternate way to the affected areas and provide its entire map available to the Health Department by March-April.

3.3 Resource Mapping

- The Director-General (Health Services) will issue a letter instructing all Chief Medical Officers, under Disaster Management act, 2005 every year in the month of April in the light of the points V & VI related to rights and duties State / District Disaster Management Authority so that to make a disaster action plan and submit it to the state- office by the month of June.
- Based on the directives, Chief Medical Officers of all the districts will prepare a list of all Government Hospitals, Private Hospitals and Nursing Homes with their current number of beds and ambulances (departmental, 108 Nos or private), number of mobile health vehicles and their drivers with contact numbers. The list will be available at the DDMA at the district level and at the State Office of the Department.
- Under the direction of Director General (Health department), Nodal Officer will direct Additional Director (Health) and each hospital (Government or Private) to assess the requirement of additional beds and keep those safe by keeping in mind the worst case scenario District Chief Medical Officer of every district will prepare a list of blood bank, blood storage center, trauma center, available human and physical resources and facilities present at the district latest by the month of May. The prepared list will be made available to District and State Disaster Cell.
- For smooth operation of ambulances (108), District Chief Medical Officer will mark the petrol pumps near the reporting point by the month of April to ensure the availability of diesel during the disaster.

- The inspection of all available ambulances will be ensured by the month of May. If an ambulance is found in poor condition, then it will be repaired immediately. Proposal to buy new ambulances will be prepared and forwarded by District Chief Medical Officer to state level at the same time.
- Chief Medical Officer will direct all Chief Medical Superintendent at district level and Medical Officer In-charge block level to get ambulances ready with all necessary inventories and latest equipments before 15 June (monsoon session).
- The Director General (Health) will issue directives to all Chief Medical to ensure the Purchase and storage of Life-saving medicines/chlorine tablets for vaccination for the next three months at the District hospital, Primary Health Center/Community Additional Health Center before June, keeping in view the possibility of disasters like heavy rains, cloudbursts, landslides and flash floods during the monsoon season. Based on the recommendation of the District Purchase and under the guidance of chief medical officer Committee, Chief Pharmacy Officer and Medical Officer (First) at the Block level will undertake such actions. Cold chains will be arranged to keep medicines safe at hospitals and health centers at all levels. In case of non-availability of electricity, the arrangement of generator and diesel will be made to the Primary Health Center/Community Health Center / Additional Health Center before rains.
- Additional Chief Medical Officers will prepare a list of voluntary blood donors and submit them in District and State Disaster Cell under the direction of Chief Medical Officer.

3.4 Identification and documentation of sensitive groups

- Chief Medical Officer of all the districts will direct all Medical Officers In-Charge at the block level to mark pregnant women of the village in the sensitive areas before the month of June with the help of ANMs, ASHAs, and Anganwadi workers in order to provide them proper care. The responsibility to complete this work will be on District Data Manager at district level and Block Data Manager at the block level, in coordination with CDPO. The prepared list will be submitted to the District Disaster Management Office through the Chief Medical Officer.
- Identification of children and adolescents to be vaccinated by ASHAs and Anganwadi workers will be undertaken by the month of April so that proper vaccination can be ensured even in any disaster situation.

3.5 Capacity building and organizing Mock drills

- Frontline Service Providers (ASHA, ANM, Anganwadi workers) will be given new information on disaster and trained on disaster rescue and relief by the District Disaster Nodal Officer time to time. In coordination with the Chief Medical Officer, Red Cross Society Field Medical Responders (FMR) will train the youth, women, retired soldiers and volunteers about health care and primary treatment. A refresher course will be conducted for them time to time.
- Department will nominate its officers at state and district level to ensure their active participation in the Mockdril at organized by Disaster Management Office.
- In the light of the instructions received from the State Disaster Management Department, the community will be made aware in the context of health and sanitation, clean water, clean food and intensive awareness a campaign will be started within the department through newspapers, banners, electronic media between March and April. Community meetings with the ANM and ASHA will be organized.

4. Guideline for information flow and actions

The information flow on the disaster will be undertaken from both the sides within the department. During any disaster, – two situation of information may arise:

- Information will be received from the emergency operation center to the State Office established at the state level. Under the direction of the Director General (Health Services), Departmental Nodal Officer / Additional Director will inform the Chief Medical Officer of the districts. Through the District Chief Medical Officer, information will be given to the Primary Health Center established at the Block level and from there, the ASHA, ANM, Anganwadi at will be instructed to reach the affected site while giving information of the disaster.
- In situation two, the service provider or any member of the village at the village level will inform about the incidence immediately to the Medical Officer of Primary Health Center located at the Block level. The Medical Officer will immediately notify the District Chief Medical Officer which further reaches to the DG (Health Service) at the State level. Accordingly, DG (Health Services) will order to take necessary actions in view of the severity of the situation.

5. Direction and Co-ordination

Although, in order to get the work done, the Secretary (Health and Family Welfare) and Director General (Health Services) will issue guidelines in the light of the guidelines issued by the State Disaster Management Authority for executing disaster operation procedures from village to state level. In light of these guidelines, Disaster Management Team or Rapid Response Team formed within the department will be activated. However, determining the conditions of activation will depend on the following circumstances:

5.1 Response in case of no early warning

This is the situation when the department has not received any earlier information about the occurrence of the disaster or disaster arises immediately after the information. If the department has not received a previous warning in the context of disaster, and disaster occurs immediately after the notifications, then in such a situation, every unit of the department from the state to the village level and various units such as the Disaster Management Team and Rapid Response Team will start responding immediately based on its preparedness and assigned responsibilities. For further action, Director-General will direct the health services through the Chief Medical Officer at the district level.

5.2 Response in case of a early-warning

In view of possibility of any natural disaster and receiving of early information of the same by State Emergency Operation Centre within 72 to 48 hours from Metrological Department, information will reach to DG-Health Services by State Emergency Operation Centre. In this situation a directive will be issued to Rapid Response Team of all level, to get equipped and ready with all required health facilities and ambulances in order to reach to the affected area immediately after disaster. In case of road blockage, Chief Medical Officer of the affected district will inform District Magistrate Rapid Response Team will be immediately sent to the affected site through helicopter by district administration. Being the leader of medical unit, an important part of Incident Response Team, Director General (Health Services) will be fully active during disaster to handle any situation.

Determining the level of response on the basis of disaster intensity:

Based on the intensity of disaster, L1, L2 and L3 level of functioning will be determined. In order to counter the disaster, planning should be undertaken based on the above three levels. Based on these different levels, the planning will be as follows:

L-1 Operation

This is the minimum level of response. Only a few people are required at this level. The main tasks are like to create plans, broadcast information. For example, broadcast warnings or planning related to some low-level events etc. are included in this level.

L-2 Operation

During this level of operation, more workers for rescue are required. District Nodal Officer will conduct and coordinate all the operations of L2 level disaster.

L-3 Operation

At the L-3 level of disasters, involvement of all the people of the department is required. This level is generally applied in the condition when the time of disaster is predetermined and the intensity of the disaster is high. In the L3 level of operation, Department will respond on the instructions of the Director General (Health Services) in coordination with the State Emergency Operation Center.

6. Activities to be undertaken during disaster

6.1 First Stage

- On notification of the occurrence of the disaster, the members of the team formed at each level will get active under the IRS and will approach the staging area by contacting the emergency operation center at the state and district level.
- Departmental Disaster Nodal Officer will ask all the available personnel of the affected district to appear before him. If the nature of the disaster is large and more people are required, then the nodal officer will issue this directive that "All holidays are canceled with immediate effect. All the workers on the leave to be back on duty immediately. "
- In response to the disaster, the District Chief Medical Officer will inform the nearest Health Center/Community Health Center of disaster affected areas about the disaster and the available Rapid Response Team will be directed to reach the spot immediately with all its resources.
- In relation to the functioning of the L3 level, if there is a possibility of human lives loss, then the concerned District Chief Medical Officer will direct all government and private hospitals of his jurisdiction to reserve sufficient number of beds immediately to admit the injured persons.
- Deputy Chief Medical Officer of the government hospitals will ensure that patients with minor sickness are discharged from the hospitals immediately after treatment so that beds can be made available to the injured persons.
- On the instructions of District Chief Medical Officer, the managers of private hospitals will ensure the immediate treatment to the injured by admitting them in their hospitals / medical institutions.

6.2 Second stage

- Marked medical teams (Doctor, Pharmacist, ANM, and ward person) will arrive immediately on flood checks/flood posts established by the District Disaster Management Authority and will start providing medical facilities.
- The following work will be adopted for determining the priority according to the condition of the injured persons at disaster location:

- **Red Tag** – Under this, seriously injured people whose treatment cannot be done at the site of the incident, will be listed.
 - **Green Tag** - Under this, those injured will be included, who need urgent treatment but are out of danger.
 - **Yellow Tags** – Under this, people will be included who have minor injuries and those who can be discharged after primary treatment.
 - **Black tag** – During disaster this tag will be for dead bodies.
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- Arrangements will be made for sending serious injured to large hospitals through high speed vehicles (based on availability) to provide adequate treatment. Medico-legal record of all the injured will be prepared and detailed list of injured and discharged patients will be given to District Disaster Management Authority and Police.
 - District Chief Medical Officer will instruct MOIC at the Block level to establish health camps at safe places near the affected areas and ensure using surgical packs only after sterilizing in these health camps. If surgery has to be made only in health camps for some reasons, then all the equipment's related to the operation and emergency medical arrangements and human resources including Anesthetist should be arranged.
 - In coordination with the district administration, District Chief Medical Officer will direct all the public and private hospitals around the disaster-affected areas to open their OPD for round the clock (24 hours).
 - On the shortage of beds in L3 level disaster, proper arrangement will be undertaken for the injured persons from the hospital administration on the instructions of the District Chief Medical Officer.

7. Activities to be undertaken after disaster

Various accounts and administrative related functions to be undertaken after the disaster are listed below :

7.1 Administrative work

- A team of Community and Primary Health Centers of affected district, with an emergency vehicle available for 24-hours will coordinate with the Jal Sanathan will visit affected areas to use chlorine tablets to clean the drinking water to broadcast bleaching powder to reduce the risk of infection and to distribute medicines for treatment and provide health-related information. All above works will be undertaken by the Health Supervisor on the instructions of District Surveillance Officer.
- There is possibility of infections due to a large number of human and animal Carcass. In such a situation, District Chief Medical Officer will coordinate with the District Administration and Animal Husbandry Department and make efforts to dispose these dead bodies as early as possible.
- On the order of the District Collector of the disaster-affected districts, a temporary post-mortem centre will be crated near to the disaster site and bodies will be dissected by the medical team and later the DNA samples of the bodies will be kept safely for identification purpose.
- District Chief Medical Officer will issue the directive in collaboration with the district administration to every government and private hospital administration to apply emergency operation and ensure the availability of proper personnel and resources in the hospital.
- On the instructions of District Chief Medical Officer, health camps will be established at the affected areas and the deployment of women doctors will also be ensured. These health camps will continue to provide services till disaster affected community keep coming to the centre for the treatment.
- Regular health camps will be organized in relief camps and in view of the health problems of women and adolescent girls, deployment of women doctors will be ensured. Vaccination of children and pregnant women will be ensured in these relief camps.
- After the disaster, their counseling will be done by the psychotherapist in relief camps to relieve people from mental stress

7.2 Sharing and discussion on implemented procedure.

- After the disaster operation, District Chief Medical Officer will review the activities of the Rapid Response Team. Experiences **and learning from the operations will be documented and further** sent to the Secretary, Health and Family Welfare through DG, Health Services.
- At the district level, Junior Engineers will assess the departmental infrastructural loss and damages and prepare a report. At the district level, the Chief District Medical Officer will check the prepared report and ensure the submission of the same to Secretary-Health & family welfare at state level through Director General-Health Services. Damage buildings and departmental resources will be repaired on the instructions of District Chief Medical Officer.

8. Suggestion

(This blank space can be used to give departmental suggestions)

9. Checklist

9.1 Activities before disaster

This form will be filled by the District Nodal Officer (Health) and submitted to the District Emergency Operations Center and the Head of the State Department:

Activities Undertaken	Yes/No	Comment
Determining Institutional roles and responsibilities		
➤ Disaster Management team has been reorganized		
➤ Nodal persons have been appointed/nominated at every level- from state to block		
➤ Contact numbers of all departmental officers and staffs at the district level have been updated		
➤ Rapid Response team including physicians, nurses, midwives, one technical emergency management staff-trained staff, paramedics and ambulance drivers have been formed		
➤ Kits of essential drugs to be used by the team have been prepared		
Risk Assessment		
➤ Most sensitive districts and blocks have been identified and alternate ways of reaching to the affected sites have also been identified		
Resource Mapping		
Below mentioned medicines and medical equipment have been stored		
➤ Medicines related to burning and fracture such as tetanus needle, antibiotic etc., I V fluid/ Emergency Medical Kit		
➤ Medicines for the treatment of water and viral-related diseases such as diarrhea, flu, etc. Bags and Mask (Adult and Small)/ Foot operator section machines.		
➤ Burning and Infection related drugs		
➤ Detoxification and respiratory-related drugs		
➤ Medicines for children		
➤ Ambulances equipped with adequate medical equipment and life-saving medicines		
➤ Medical team description that accompanies the ambulance		
➤ Various color tags to prioritize the injured for treatment		
➤ Anesthesia gas for operation		

The list of all the government and private hospitals, nursing homes with their resources has been prepared.		
District wise list of medical facilities, blood center, blood bank, trauma center etc. is available in the state.		
Emergency lights are available with battery backup in case of power cut. The main areas of the hospital such as stairs, verandahs, operation room, ICU, recovery room, neonatal intensive care room, nursing room and cashier room Has been connected with power supply.		
The responsible institutions have been marked for the maintenance and arrangement of the main source of water and pumping stations or to ensure timely arrangement of the alternate water system.		
The secure places have been selected in the hospital where the injured should be kept in large number during the disaster.		
Arrangements have been made to convene staff and hand over responsibilities to respond during an emergency.		
Arrangements have been made with the help of administration for accommodating the medical teams coming from outside.		
Security arrangements are adequate in the hospital. For example, the hospital has firefighting equipment's (fire extinguishers, rubber faucets etc.) and the staffs are trained to run it.		
The information about the exit points of the hospital and the firefighting equipment has been displayed through the signs.		
Local police, rescue team and ambulance team have information about the resources of each hospital.		
Identification and documentation of sensitive groups		
Sensitive groups (pregnant women, old women, adolescent girls) of all sensitive areas have been identified.		
Organizing Capacity Enhancement and Mock drill		
Emergency staff is trained in advanced cardiac and pediatric life support.		

Field Medical Responders (ASHA, ANM and enthusiastic youth of the community) have been trained for primary treatment.		
Participation has been made in the mock drill organized by State / District Disaster Management Authority.		

9.2 Activities During Disaster

Activities Undertaken	Yes/No	Comment
The communication system is developed to maintain proper communication with the following units/institutions during the disaster- <ul style="list-style-type: none"> ➤ State Emergency Operations Center ➤ Disaster Mitigation and Management Center ➤ Commissioner Disaster Management ➤ District emergency operation center ➤ Private hospital ➤ Government hospital 		
Those patients have been discharged who are now better in health terms.		
Hospitals are having all the data related to admitted patients and referred patients to other hospitals.		
Reporting and recording are being done in prescribed standard format.		
A public information center is established in the hospital, where people can get information about their family members.		
State Emergency Operations Center has been consulted for identifying the proper site for the placement of health camps.		
Presence of water supply system near the selected site.		
There are proper route to access and exit routes for the selected site.		
There is a well-established system in health camp to communicate and interact with state emergency operating center.		

The health camp is operated near the disaster site.		
Proper facility in the health camp for patients, attendants and department personnel from Heat, rain, and cold etc.		
Proper privacy is maintained for the treatment of women and adolescents.		
A separate place has been arranged for friends and relatives visiting the campus and has separate guidelines for them.		
There is a proper arrangement of lighting, water supply, toilets and baths for patients at the campsite.		
Police have been deployed at medical posts.		
Request has been sent for additional medical assistance.		
Troyes tags and other supplies are available for managing large-scale accidents.		
Record has been preserving in following way 1. Name and address of the injured 2. Types of injured 3. Has been referred for the further treatment?		
Record of Injured persons have been handed over to the Police Department and State Emergency Operations Center.		
The State Emergency Operations Center and the police have been informed regarding treatment of the injured.		

9.3 Checklist (Under epidemic condition)

This form will be filled by District / Block Nodal Officer (Health and Family Welfare) and will be handed over to the Head of the department and District Operational Center :

Activities Undertaken	Yes/No	Comment
Warnings and instructions have been issued among the people regarding the prevention of diseases.		
Closure of the affected areas has been recommended.		
Logistic support is needed from a high level.		
The route has been seiged, considering the difficulty of injured people.		
Alternate routes are marked for the affected area.		
Facility for Sterilization is sufficiently available.		
Lives saving medicines are adequate.		
There is sufficient supply of vaccines.		
There are sufficient numbers of beds for accommodating the affected people in case of an epidemic.		
There is a special dietary arrangement for pregnant women, lactating mothers and small children.		
There is an arrangement of keeping the affected people separately.		
Proper facility of water screening and treatment facilities around hospital.		
Proper security is available for workers working in the hospital premises and health camps.		