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The students will be able to gain knowledge regarding “Disaster management and preparedness” and develop desirable skills and attitude towards the care of client with “Disaster management” at various settings.

SPECIFIC OBJECTIVES

At the end of the class, student will be able to

- meaning of disaster management
- discuss the epidemiological determinants of disaster management
- explain the transmission of disaster management
- enlist the high risk patients
- describe the criteria for clinical diagnosis
- describe the clinical features and prevention of disaster management
- explain the clinical management of disaster management
- enumerate the outbreak control measures and nursing care for disaster management

S.N O	SPECIFIC OBJECTIVE	TIME	CONTENT	TEACHERS ACTIVITY	LEARNERS ACTIVITY	AV AIDS	EVALUATION
1	meaning of disaster management	2	<p><u>DISASTER PREPAREDNESS AND MANAGEMENT</u></p> <p>INTRODUCTION:</p> <p>Disaster is an occurrence arising with little or no warning, which causes serious disruption of life and perhaps death or injury to large number of people. It is any man made or natural event that causes destruction and devastation which cannot be relieved without assistance.</p> <p>TERMINOLOGIES:</p> <ul style="list-style-type: none"> ▶ Disaster – Any occurrence that causes damage, ecological disruption , loss of human life or deterioration of health and health services on a scale sufficient to warrant an extra-ordinary response from outside the affected community or area. ▶ Preparedness – The pre-disaster stage in which individuals and communities plan for and co-ordinate their response efforts. ▶ Recovery – The stage of disaster when all involved agencies and individuals pull together to restore economic 	Explaining	Listening	Roller board	What is the meaning of disaster management ?

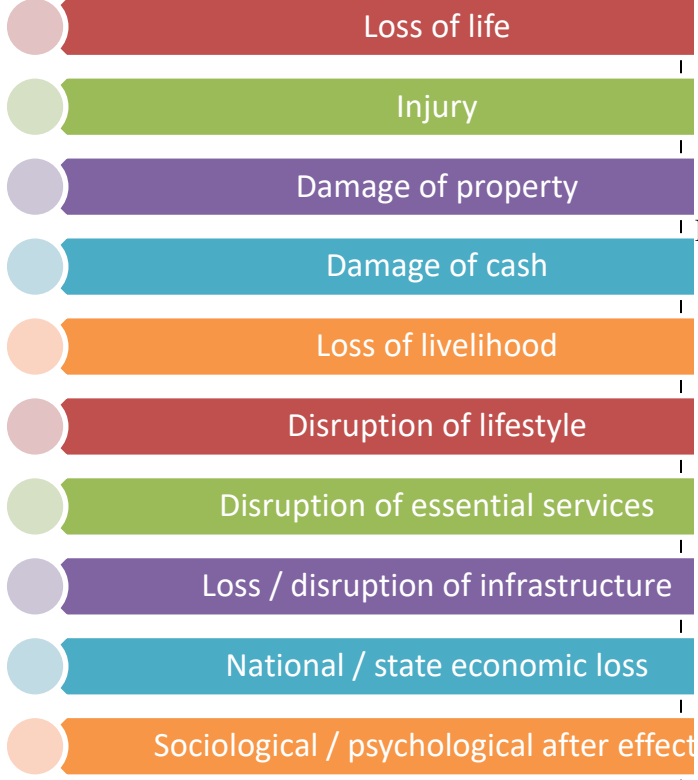
2		<p>and civic life of a community.</p> <ul style="list-style-type: none"> ▶ Response – Responsibilities assumed & activities that occur as a result of a specific level of disaster. ▶ Mitigation– Actions or measures that can either prevent the occurrence of a disaster or measures that can reduce the severity if its effects. ▶ Bio-terrorism – Utilization of biological agents to cause disease in a community. ▶ Casualty- A person affected in a disaster , who is in need of emergency care. ▶ Triage – Deciding which victim needs immediate medical care. <p>DEFINITION OF DISASTER:</p> <p>A disaster is an occurrence such as hurricane, tornado, storm, flood, high water, wind-driven water, tidal wave, earthquake, drought, blizzard, pestilence, famine, fire, explosion, volcanic eruption, building collapse, transportation wreck, or other situation that causes human suffering or creates human needs that the victims cannot alleviate without assistance.</p> <p style="text-align: right;">- AMERICAN</p> <p>RED CROSS</p>	Explaining	Listening		
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3	discuss the epidemiological determinants of disaster management	2	<p>Any occurrence that causes damage, economic disruption, loss of human life and deterioration in health and health services on a scale sufficient to warrant an extraordinary response from outside the affected community or area.</p> <p>- WHO</p> <p>Definition of Disaster Nursing:</p> <p>Involves response to (and preparedness for) natural or man-made events that affect an entire community or communities. (Usually) involve massive numbers of casualties and extensive property damage.</p> <p>DISASTER alphabetically means:</p> <p>D – Destructions</p> <p>I – Incidents</p> <p>S- Safety</p> <p>A - Administrative, Financial Failures.</p> <p>S - Sentiments</p> <p>T - Tragedies</p> <p>E - Eruption of Communicable diseases.</p> <p>R - Research Programme and its implementation</p> <p>TYPE OF DISASTER:</p>	Explaining	Listening	Bulletin board	What are all the epidemiological determinants?
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	<p>explain the transmission of disaster management</p>		<p>1. NATURAL DISASTER</p> <p>2. MAN MADE DISASTER</p> <p>NATURAL DISASTER:</p> <p>Natural disaster is the effect of a natural hazard (e.g. flood, tornado, hurricane, volcanic eruption, earthquake, or landslide) that affects the environment, and leads to financial, environmental and/or human losses</p> <ul style="list-style-type: none"> ▪ Earthquake ▪ Cyclones ▪ Floods ▪ Tidal waves ▪ Land slides ▪ Volcanic eruption ▪ Fires ▪ Hurricanes ▪ Snow storms ▪ Ideal waves ▪ Severe air pollution ▪ Heat waves ▪ Famines ▪ Epidemics 			<p>Black board</p>	<p>Explain the transmission of disaster management ?</p>
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		<ul style="list-style-type: none">▪ Building collapse▪ Nuclear accident▪ Warfare <p>MAN MADE:</p> <ul style="list-style-type: none">▶ Wars.▶ Transportation accidents.▶ Structural collapse.▶ Explosions , bombing.▶ Fires.▶ Toxic chemical leak.▶ Pollution.▶ Civil unrest.▶ Dam failures.▶ Bioterrorism. <p>CAUSES OF DIASTER:</p> <ul style="list-style-type: none">❖ Falling buildings❖ Weather conditions❖ Leakage of stored chemicals into air, soil, ground water or food supplies				
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4	enlist the high risk patients	2	<ul style="list-style-type: none"> ❖ Lack of awareness regarding natural calamities ❖ Environmental degradation ❖ Rapid Urbanization ❖ Population growth ❖ Short intense storms causing flash floods ❖ High relative humidity ❖ Deforestation <p>GENERAL EFFECTS OF DISASTER:</p>	Explaining	Listening	Hand out	What are the high risk group for disaster management
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5	describe the criteria for clinical diagnosis	4	 <p>LEVELS OF DISASTER:</p> <p><u>LEVEL I</u></p> <ul style="list-style-type: none"> • Considered a massive disaster- this involves a massive level of damage with severe impact. <p><u>LEVEL II</u></p> <ul style="list-style-type: none"> • Considered a moderate disaster. The local and community resources has to be mobilized to manage this situation. 	Explaining	Listening	Power point	What is the clinical manifestation of disaster management
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LEVEL III

- Considered a minor disaster. These are involves minimal level of damage.

PHASES OF A DISASTER:

- Pre impact phase:
- Impact phase:
- Post impact phase:
- Heroic phase:
- Honeymoon phase:
- Disillusionment phase:
- Reconstruction phase:

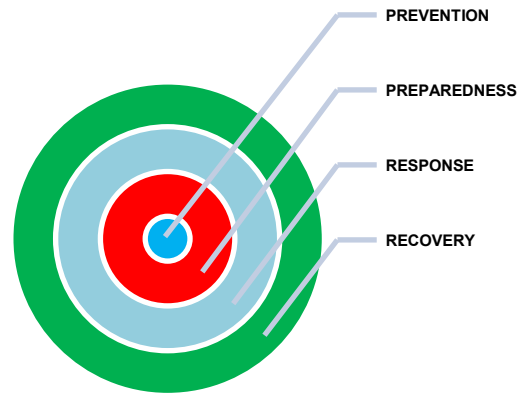
Pre impact phase:

- Initial phase prior to occurrence.
- Sometimes warning is given by the government.

Impact phase:

- When disaster actually occurs.
- Hardship & injury occur.
- Individuals help neighbors and families at the scene.

		<p>Post impact phase:</p> <ul style="list-style-type: none"> • Begins with emergency till the return to the normal community functioning. <p>Heroic phase:</p> <ul style="list-style-type: none"> • At the time of disaster. • People work together with excitement. <p>Honeymoon phase:</p> <ul style="list-style-type: none"> • Short period when the victims are completely supported by external agencies. • Optimism is high and plans are made. <p>Disillusionment phase:</p> <ul style="list-style-type: none"> • Unexpected delays & failures, Frustration & confusion. • Victims function individually. <p>Reconstruction phase:</p> <ul style="list-style-type: none"> • Lasts for years. • Co-ordinated individual community effort to rebuild the community. • Environmental health problems are solved. <p>STAGES OF DISASTER MANAGEMENT:</p>				
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- Prevention
- Preparedness Stage:
 1. Personal Preparedness
 2. Professional Preparedness
 3. Community Preparedness:
- Response Stage:
- Recovery Stage:

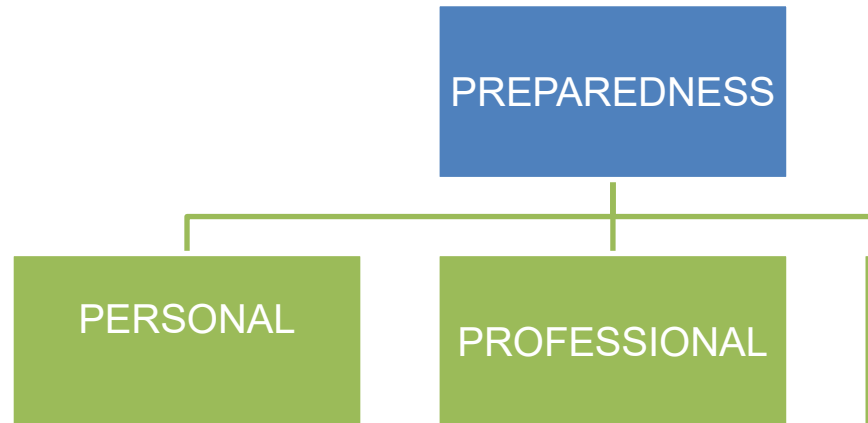
PREVENTION

- The task during this phase is to identify community risk factors and to develop and implement programs to prevent disasters from occurring.
- Programs developed during this phase may also focus on strategies to mitigate the effects of disaster that cannot be

prevented such as earth quakes, cyclones etc.

- ❑ Task force includes are local and national government, social service providers, police & fire department, major industries, local medias etc.

PREPAREDNESS STAGE:



PERSONAL PREPAREDNESS

Health care professionals with client responsibilities can also become disaster victims. Conflicts arise between client related and work related responsibilities. Personal and family preparation can help to ease of some of the conflicts.

		<p>STEP ONE: Get A Kit</p> <ul style="list-style-type: none">• At a minimum, have the basic supplies listed below.• Keep supplies in an easy-to-carry emergency preparedness kit that you can use at home or take with you in case you must evacuate.• Water—one gallon per person, per day (3-day supply for evacuation, 2-week supply for home).• Food—non-perishable, easy-to-prepare items (3-day supply for evacuation, 2-week supply for home)• Flashlight• Battery-powered or hand-crank radio (NOAA Weather Radio, if possible)• Extra batteries• First aid kit• Medications (7-day supply) and medical items• Multipurpose tool• Sanitation and personal hygiene items• Copies of personal documents (medication list and pertinent medical information, proof of address, deed/lease to home, passports, birth certificates, insurance policies)				
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6	diagnosis	3	<ul style="list-style-type: none"> • Cell phone with chargers • Family and emergency contact information • Extra cash • Emergency blanket • Map(s) of the area. <p>STEP TWO: Make a Plan</p> <ul style="list-style-type: none"> • Meet with your family or household members. • Discuss how to prepare and respond to emergencies that are most likely to happen where you live, learn, work and play. • Identify responsibilities for each member of your household and plan to work together as a team. • If a family member is in the military, plan how you would respond if they were deployed. <p>Plan what to do in case you are separated during an emergency.</p> <p>Choose two places to meet:</p> <ul style="list-style-type: none"> • Right outside your home in case of a sudden emergency, such as a fire • Outside your neighborhood, in case you cannot return home or are asked to evacuate 	Explaining	Listening	Power point	Disaster management diagnosis?
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<p>describe the clinical features and prevention of disaster management</p>		<ul style="list-style-type: none"> • Choose an out-of-area emergency contact person. It may be easier to text or call long distance if local phone lines are overloaded or out of service. • Everyone should have emergency contact information in writing or programmed into their cell phones. <p>Plan what to do if you have to evacuate.</p> <ul style="list-style-type: none"> • Decide where you would go and what route you would take to get there. You may choose to go to a hotel/motel, stay with friends or relatives in a safe location or go to an evacuation shelter if necessary. • Practice evacuating your home twice a year. Drive your planned evacuation route and plot alternate routes on your map in case roads are impassable. • Plan ahead for your pets. Keep a phone list of pet-friendly hotels/motels and animal shelters that are along your evacuation routes. <p>Plan ahead of time by:</p> <ul style="list-style-type: none"> • Talking with family members and loved ones about how they would be cared for if they got sick. 				
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		<ul style="list-style-type: none">• Finding out your employer's plans to keep the business open if key staff can't come to work.• Asking your child's school or day care if there are plans to encourage children who are sick to stay home to reduce the spread of the disease.• Identifying how you can get information, whether through local radio, TV, Internet or other sources. Click here for more information on how to prepare for a flu pandemic <p>STEP THREE: Be Informed</p> <ul style="list-style-type: none">• Learn what disasters or emergencies may occur in your area.• These events can range from those affecting only you and your family, like a home fire or medical emergency, to those affecting your entire community, like an earthquake or flood.• Identify how local authorities will notify you during a disaster and how you will get information, whether through local radio, TV or NOAA Weather Radio stations or channels. Know the difference between different weather alerts such as watches and warnings and what actions to take in each.				
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			<ul style="list-style-type: none">• Know what actions to take to protect yourself during disasters that may occur in areas where you travel or have moved recently.• For example, if you travel to a place where earthquakes are common and you are not familiar with them, make sure you know what to do to protect yourself should one occur.• When a major disaster occurs, your community can change in an instant. Loved ones may be hurt and emergency response is likely to be delayed. Make sure that at least one member of your household is trained in first aid and CPR and knows how to use an automated external defibrillator (AED). This training is useful in many emergency situations.• Share what you have learned with your family, household and neighbors and encourage them to be informed.• Emergency Contact Cards for All Household Members• Get your Emergency Contact Cards.• Print one card for each family member.• Write the contact information for each household member, such as work, school and cell phone numbers.				
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		<ul style="list-style-type: none">• Fold the card so it fits in your pocket, wallet or purse.• Carry the card with you so it is available in the event of a disaster or other emergency. <p>PROFESSIONAL PREPAREDNESS</p> <ul style="list-style-type: none">➤ Professional preparedness requires that health care professionals become aware of and understand the disaster plans at their work place and community. Adequately prepared professionals can function as leaders in the disaster management areas.➤ Personal items that are recommended for a professional to keep for the disaster management are- copy of professional license, personal equipment's such as stethoscope, flash light and extra batteries, cellular phone, warm clothing or heavy jackets, protective shoes, pocket sized reference➤ Nurses should understand and be aware of the disaster plans in their workplace and community.➤ Involve with interest & participate in mock drills.➤ Well prepared nurses can lead during disasters.➤ Keep personal items prepared.➤ Train yourself in first aid & CPR.				
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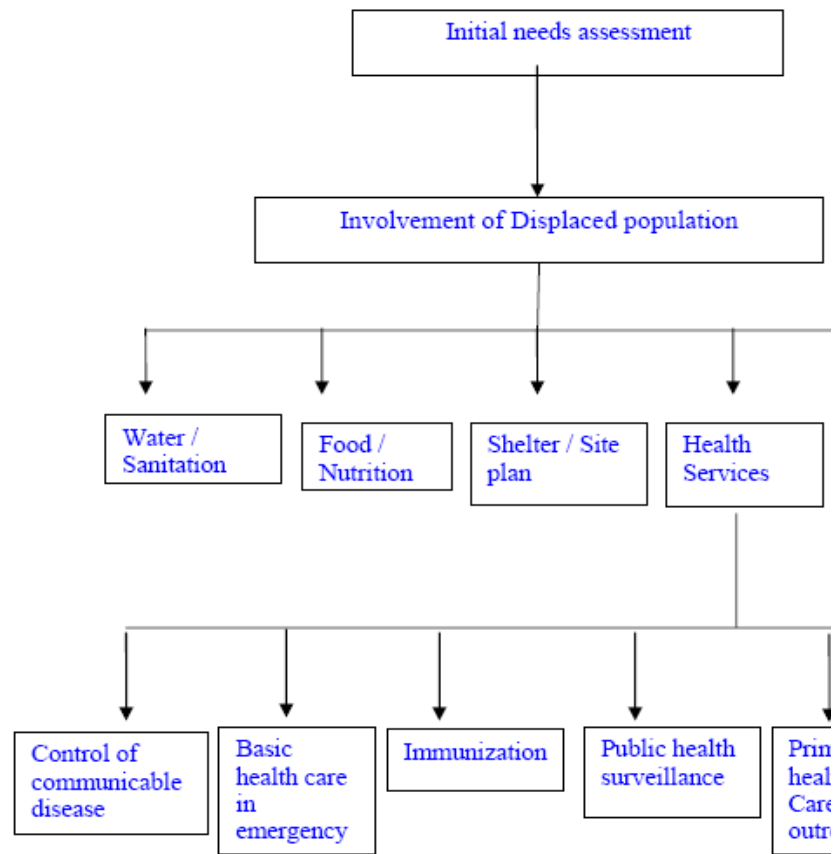
7		3	<p>➤ Register in a relief organization.</p> <p>COMMUNITY PREPAREDNESS:</p> <ul style="list-style-type: none"> • Communities should have written disaster plans applicable to their location. • All the members should be aware of it. • Conduct annual mock drills. • The government also provides this. • Nurses can work together with the community and be prepared. <p>CONSTITUTION OF DISASTER MANAGEMENT COMMITTEE</p> <p>The following members would comprise the disaster management committee under the chairmanship of medical superintendent/ director.</p> <ul style="list-style-type: none"> ▪ Medical superintendent/ director ▪ Additional medical superintendent ▪ Nursing superintendent/ chief nursing officer ▪ Chief medical officer (casualty) ▪ Head of departments- surgery, medicine, orthopedics, radiology, anesthesiology, neurosurgery 	Explaining	Listening	Pamp	
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	<p>explain the clinical management of disaster management</p>		<ul style="list-style-type: none"> ▪ Blood bank in charge ▪ Security officers ▪ Dietitian ▪ Transport officer ▪ Sanitary personnel <p>RESPONSE STAGE:</p> <p>The level of disaster varies and the management plans mainly based on the severity or extent of the disaster.</p> <p>Level III disaster- considered a minor disaster. The disaster is classified as one that involves a minimal level of damage</p> <p>Level II disaster- considered a moderate disaster that is likely to result in major disaster. Mobilizations of support system are necessary at this level.</p> <p>Level I disaster- considered a massive disaster. This disaster involves a massive damage to lives and property.</p> <p>PLANNING AND DESIGN CONSIDERATION:</p> <ul style="list-style-type: none"> - Space - Locomotion - Entrance - Waiting Area - Triage Station 			-hlet	<p>What are the clinical management of disaster management ?</p>
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		<ul style="list-style-type: none"> - Treatment Area - Communication - Equipment <p>SPACE:</p> <ul style="list-style-type: none"> • As a rule of thumb, daily patient load of a hundred in the casualty department requires a space of 1000 m2. <p>LOCOMOTION</p> <ul style="list-style-type: none"> • Be located on the ground • Have direct access from the main road (easy accessibility for ambulance); and • Have adequate space for the passage of vehicles and covered area for patient at alight at the entrance • readily accessible from the OT, x-ray department, blood bank , laboratories, intensive-care and treatment units, obstetric unit burn unit, medical records department and morgue <p>ENTRANCE</p> <ul style="list-style-type: none"> • Separate entrance for an ambulance with adequate space for free passage of vehicles. The entrance should have ramps and a two-way swinging door Separate 				
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		<p>arrangement for receiving ambulant patient and those on trolleys.</p> <p>WAITING AREA</p> <ul style="list-style-type: none"> • A reception and information desk • A comfortable and well furnished waiting area for the relatives of patient • Separate toilet for both the sexes • A public telephone • A place for keeping wheelchair and trolleys <p>TRIAGE STATION</p> <ul style="list-style-type: none"> • The triage station should be located where patient in both critical • And non-critical condition can be assessed prior to their entry into the acute treatment area <p>TREATMENT AREA</p> <ul style="list-style-type: none"> • The treatment area should be designed with the right combination of maximum observation and privacy in mind. This can be done by arranging cubicle in full view of the nurses' station. The front curtain of the cubicle can be left open in case of patients who require frequent observation. 				
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		<p>COMMUNICATION</p> <ul style="list-style-type: none"> • The emergency department should be well connected to other department, intensive care centers, consultants and senior doctors through telephones, intercoms. <p>EQUIPMENT</p> <ul style="list-style-type: none"> • Centralized piped oxygen and suction supply • Wall- mounted manometer • Airways and resuscitation bags • Portable defibrillators, ECG and monitoring oscilloscope • Respiratory aids • Special medications, intravenous equipment and fluids • Sufficient bandages, drugs and plaster. <p>RECOVERY STAGE:</p> <ul style="list-style-type: none"> • During this phase the community take actions to repair, rebuilt, or reallocate damaged homes and businesses and restore health and economic vitality to the community. • Psychological recovery must be addressed. The emotional scars of witnessing a disaster may persist for long duration. • Both victims and relief workers should be offered mental health activities and services. 				
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i) MANAGEMENT OF DISASTER IN HOSPITAL:

-ROLE OF NURSE IN DISASTER:

Nurse along with the health team needs to utilize primary health care intervention in acute emergencies as follows:-

		<ul style="list-style-type: none"> · Nursing Management · Immunization and preventive health · Management of diarrheas and dehydration. · Management of acute respiratory infections. · Setting up a health information system. · Safe drinking water supply. · Sewage and sanitation facilities. · Training and support for health workers. · Other basic services. <p>ROLE OF NURSE IN HOSPITAL:</p> <ul style="list-style-type: none"> • Identify nursing needs - allocating extra nursing staff in essential areas - Redeploying existing staff - Recalling of staff - Activating pre- arranged admission ward - Co – ordinate with health care team in treatment of casualties - Formulating duty roster plan. - Taking charge of personal belonging of patient - Conduct CNE, workshop on DM - Orient new staff to hospital policies. 				
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8	enumerate	2	<ul style="list-style-type: none"> - Treat patient according to triage - Provide psychological support - Associate with voluntary organ donation - Safe blood transfusion - Involve in outreach programe - Crowd management. <p>ii) DISASTER MANAGEMENT IN CURRICULUM:</p> <ul style="list-style-type: none"> • NATIONAL LEVEL <ul style="list-style-type: none"> - INC syllabus on Demonstration. • STATE LEVEL <ul style="list-style-type: none"> - SRC, universities prescribe hours requirements • COLLEGE LEVEL <ul style="list-style-type: none"> - Disaster area visits, drills, participate in disaster activity. <p>iii)MANAGEMENT OF DISASTER IN COMMUNITY AREA:</p> <p>-ROLE OF NURSE IN COMMUNITY HALTH NURSE:</p> <p>ASSESS THE COMMUNITY:</p> <p>Assess the local climate conducive for disaster occurrence, past history of disasters in the community, available</p>	Explaining	Listening		
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<p>the outbreak control measures and nursing care for disaster management</p>		<p>community disaster plans and resources, personnel available in the community for the disaster plans and management, local agencies and organizations involved in the disaster management activities, availability of health care facilities in the community etc.</p> <p>PREPARE THE COMMUNITY:</p> <p>Community Participation: The community health nurse maintains the link between professional group Of experts in disaster management and community.</p> <p>Mock trails/training: The training of various inter-disciplinary forces like school children, voluntary organizations can be imparted by community health nurse and her team.</p> <p>Mass awareness: The community should have the knowledge of all the Channel communication system, stand by equipment supplies and other resources; otherwise disaster preparedness will be failure.</p> <p>Education: Mass awareness through media, booklets, panel discussion, films and televisions information is very essential.</p> <p>ROLE OF A COMMUNITY HEALTH NURSE IN DISASTER PREPAREDNESS:</p>				
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		<ul style="list-style-type: none"> ▶ Facilitate preparedness in the community & work place. ▶ Help Initiate or update the disaster plan. ▶ Provide educational programs and materials. ▶ Provide update record of vulnerable population in the community. ▶ Gather information of the other people in that area / institution who are trained and can be of use during a disaster. ▶ Assess & report health hazards in the community. ▶ Undergo disaster programs conducted by different agencies & register in them. <p>CONCLUSION:</p> <p>Disaster is an emergency situation, therefore coordination of actions and various departments is an essential requisite for efficient management of mass casualties.</p>				
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