Basics in Paediatrics In Disasters

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Outline

• Guiding principles in Disaster Management
• Common Terminologies
• Role of Red Cross & Role of Healthcare Sector
• Mock exercise ‘Simulated Disaster Response, (Magen David Adom, MDA Israel)
Guiding Principles in Disaster Management
Common terminologies

• Disaster
• Emergency
• Mass Casualty Incident (MCI)
Disaster

• A sudden event that causes serious disruption of the functioning of a community resulting to widespread human, material, economic or environmental loss that exceeds the ability of the affected community to cope using its own resources (WHO, IFRC, UNSDR)

• Disasters do not always generate Mass Casualties
Emergency Incident

• An event, actual or imminent, which endangers or threatens to endanger life, property or the environment, and which requires a significant and coordinated response.

• Disasters are considered emergency incidents
Disasters: Understanding the problem

• 2009: Nearly one natural disaster/Day in the world, killing an estimated 10,655 persons and affecting 119 million others through loss of homes or livelihoods.

• 2014: A record number of level 3 humanitarian crises: Syria, Iraq, Central African Republic, resulting in requests to help over 76 million people in 31 countries

• The frequency and severity of these natural disasters seem to increase every year, most likely related to global warming.
Disasters: Understanding the problem

- LMICs often lack the public health facilities, staffing and infrastructure, emergency management preparedness, water and sanitation infrastructure, and food/nutrition capacity to respond to a major natural disaster or complex humanitarian emergency.

- Majority of clinical healthcare workers are not skilled and competent in responding to humanitarian and public health emergency incidents.
Types of Disasters & Emergency Incidents

Slow Onset:

- Flood
- Drought
- Famine
- Chemical Spill
- Disease Epidemics

Sudden Onset:

- Collapsing Buildings
- Civil Clashes
- Flash Flood
- Road Traffic Accident

- Natural disasters
- Man-made disasters
Severity of Disasters

- Magnitude of the event
- Vulnerability of the population
- Number of affected people
- Rates of associated diseases
- Crude mortality rate (CMR)
Population Vulnerability

Children

- Increased numbers of deaths and injuries
- Population displacements
- Psychological and social behaviour disorders
- Possible food shortages and nutritional deficiencies
- Disease from environmental health hazards
Number of affected People: Mass Casualty Incident/Mass Casualty Event

• Any emergency incident resulting in a number of victims (casualties) large enough to disrupt the normal day-to-day operations of emergency and healthcare facility services (WHO)
Mass Casualty Incidents

• Intentional
  • Deliberate (terrorist) harm intended to harm a large number of people
  • Chemical, Biological, Nuclear, Radiological agents
  • Civil wars (PEV, Tribal clashes, Political strife)

• Accidental
  • Occurs as a result of human error (leading to large fatalities or injuries)
  • Fires, electrical, major car crushes

• Natural
  • Occurs due to natural hazards
  • Mudslides, floods, earthquakes, disease outbreaks
Impact of Disasters/Mass Casualty Incidents on Health care Systems

**Strain on System Capacity**
- Facility does not have enough physical resources to respond to the incident
  - E. g number of doctors, nurses, beds, ambulances, space for treatment

**Strain on System capability**
- Normal procedures and treatment may not be feasible because of number of victims
  - Will depend on what the facility can/can not do
  - E. g surgeries, diagnostic tests, equipment, staff expertise
Hazard Specific Plan

• Is a community plan for relevant hazards, threats, or incidents to allow a community to consider how local factors contribute to potential threats

• Will arise from findings on Hazard vulnerability analysis
  • A systematic and formal approach to evaluating the probabilities and consequences of all hazards that might affect the facility or surrounding community
The role of Kenya Red Cross Society

• Established in 1965, ACT of parliament, CAP 256, for Humanitarian & Relief Response >>>>Red Cross Action Teams (RCATS)
• Local network of volunteers and staff (63 branches)
• Supporting Pediatrics in Disaster Training(course 1, Sep-Oct 2015)

• Principles: Humanity, Impartiality, Independence, Neutrality, Voluntary Service, Unity, Universality
What is the role of healthcare sectors during a disaster related Mass Casualty Incident (MCI)

• Mass casualty management is the health sectors’ immediate priority in any emergency incident
• Response should be through a standardized and well defined/rehearsed Incident Management System together with Standard Operating Procedures
• Health Care should begin at the site of impact (e.g. during search and rescue following a collapsed building)
• Care must be prioritized (based on MCI Triage)
How should healthcare sectors operate during a disaster related Mass Casualty Incident?

**One Way Flow**

- **Impact Zone**
  - Field Medical Post
    - Command Post
    - Triage Post
    - 4 Color Code & Stabilization zones
    - Transport Zone

- **Hospital**
  - Command Post
  - Triage Post
  - Emergency Care
  - Definitive Care
  - Transfer Centre
  - Logistics and Communication
  - Media & Public Communication
Proposed best practices for all health care sectors and institutions in Disaster Management?

- Conduct local Hazard & Vulnerability Assessment
- Develop Disaster/Emergency Incident management Plans (spanning Pre-disaster, During and Post-Disaster phases)
- Develop Internal capacity for managing internal disasters
- Develop internal capacity for responding to surge capacity
- Periodically review/test existing disaster response plans
- Lobby for and Implement a local joint emergency response plan
Mass Casualty Event Using ICS and Tested SOPs
Questions
Summary

• Children are vulnerable during disaster and emergency incidents
• Hospitals should have workable disaster plans that focus on the needs of children