

# DISASTER PREPAREDNESS AND MANAGEMENT

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# NUGGETS

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- We are experts in managing the expected, are we great at managing the overwhelming.
- This is no longer just about floods. It's about pandemics, infrastructure failure, mass-casualty events, and cyberattacks.
- The goal of preparedness is to move from reaction to professional preparation: reaction is dangerous
- A clear, logical system to follow, based on modern best practices, so that we become the force that creates order from chaos.

# OUTLINE

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- The Foundations: Key Definitions, Classifications, & Phases.
  - PART 1: PREPAREDNESS (The "Pre-Impact" Phase)
    - The Institutional Plan (Disaster Committee, The Plan)
    - The Personal Plan (Your "Dual Role" )
  - PART 2: MANAGEMENT (The "Impact" & "Post-Impact" Phases)
    - The Response (ICS, Triage, Your "New" Job)
    - The Recovery (Debriefing, Evaluation, Staff Welfare)
  - Conclusion: Summary & Key Takeaways.



# THE FOUNDATIONS (DEFINITIONS)

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- Disaster: "A situation, man-made... [or natural]... that produce an immediate patient load greater than the normal... emergency department can handle."
- [any event that overwhelms your normal capacity. It's about resources vs. demand]
- : factory explosions, fire, chemical spills, radiation leaks, building collapse, transport accidents(road, air, rail, sea), wars, civil conflicts, terrorist attack, riots, pollution, climate change, cyber attacks, hurricanes, tornadoes, thunderstorms, floods, storm surges, earthquakes, volcanic eruptions, landslides, droughts, wildfires, extreme heat or cold,

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- EMSS (Emergency Medical Services System): "A coordinated community based system... to provide... emergency rescue, resuscitation, transportation..."
  - [in Lagos,: LASEMA, LASAMBUS (767,112)]



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- The Core Concept: The "All-Hazards Approach"
  - The old way: A different plan for a flood, a fire, a bomb.
  - [We don't plan for 100 different causes. We plan for 3 or 4 consequences.]
  - The new way: One single, flexible plan that expands to meet the consequences (e.g., Loss of Power, Surge of Patients, Evacuation).

# FOUNDATIONS (CLASSIFICATIONS & PHASES)

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## Classifications:

- Internal Disaster: (Inside the hospital) Fire, power failure, chemical spill.
- External Disaster: (Outside the hospital) Plane crash, flood, pandemic.
- Mass Casualty Disaster: "Results in over 100 casualties" (or simply overwhelms the entire community).

## Phases of Disaster:

- Pre-Impact Phase (PREPAREDNESS)
- Impact Phase (MANAGEMENT-RESPONSE)
- Post-Impact Phase (MANAGEMENT-RECOVERY)





# PREPAREDNESS (THE "PRE-IMPACT" PHASE)

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## The Institutional Plan

- Mock drills
  - Disaster Drills the 'most absolute way' to ensure effectiveness. A drill is not a test to pass. A drill is a hunt for failure. A drill that finds a flaw—like the backup generator not powering the vents—is a successful drill, because we found it before it could kill someone.
- The Disaster Committee:
  - The "who.": Needs "Active... leadership," "Willingness to learn," "Key departmental representation."
  - The Disaster Plan: The "what." Must be "Brief, clarity, conciseness," "Be based on facts," "Provide organization," "Integrate with E.M.S."

# PREPAREDNESS: YOUR "OTHER" JOB (THE DUAL ROLE)

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- YOUR Personal Plan:
- The Dilemma: You are a Healthcare Professional. You are also a Parent, Spouse, Child.
- You CANNOT fulfill your professional duty if your personal life is in chaos. You will be distracted, you will be absent, or you will be ineffective.
- Family Communication Plan: (Who do you call?)
- Your "Work Go-Bag": (In your locker/car) Change of scrubs, toiletries, phone charger, protein bars, personal meds.

...a prepared health worker can focus. An unprepared health worker is another victim.







# DEEP BREATH

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## PART 2: MANAGEMENT (THE RESPONSE)

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- Management is NOT just 'getting busier'
- It is a different system, a different ethic, and a different job.
- Your "New" System: Incident Command System (ICS)
- Your "New" Ethic: Disaster Triage
- Your "New" Job: The Responsibilities

# MANAGEMENT:THE SYSTEM (INCIDENT COMMAND SYSTEM)

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Creates Order from Chaos

- A call for "Coordination," "Leadership," and "Authority." ICS is the standardized system for this.
- Key Principles:
- ONE BOSS:You report to one person. No more conflicting orders.
- ONE JOB: Most likely, you are OPERATIONS (The "Do-ers").
- LOGISTICS gets supplies. PLANNING finds beds.You get to focus on your job.



# MANAGEMENT:THE ETHIC (THE "UNTHINKABLE" CHOICE)

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- BLACK (Deceased/Expectant)
  - RED (Immediate)
  - YELLOW (Delayed)
  - GREEN (Minor)
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- Normal Triage: Help the sickest patient first.
  - Disaster Triage: Adopt the philosophy of the 'Greatest good for the greater number.'

This means you will walk past a BLACK tag (dying, non-survivable) to save a RED tag (life-threatening, survivable).

# WHICH PATIENT DO YOU TREAT FIRST

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You arrive at a mass casualty scene. Four patients are presented:

- A. A calm patient lying quietly, but with a massive head injury and irregular breathing.
- B. A shouting patient with a broken arm and bleeding that has already stopped.
- C. A gentle patient sitting up, but with severe chest pain and difficulty breathing.
- D. A restless patient with minor cuts and bruises, loudly demanding attention.



Direct answer: Manage A first, then C, then B, then D.

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- - A — First priority (Red): Irregular breathing with a massive head injury suggests airway compromise or impending respiratory failure. Airway and breathing threats come first.
- - C — Second priority (Red): Severe chest pain with difficulty breathing indicates possible life-threatening cardiopulmonary compromise (e.g., MI, PE, tension pneumothorax). Stabilize after A.
- - B — Third priority (Yellow): Shouting with a broken arm and controlled bleeding is painful but not immediately life-threatening. Needs urgent care, not immediate life-saving intervention.
- - D — Fourth priority (Green): Minor cuts and bruises; ambulatory and stable. Can wait or be directed to self-care.

# Triage Systems & Tags

The most common classification uses the internationally accepted four color code system.



**Red** indicates high priority treatment or transfer, e.g. Massive Hemorrhage, Tension Pneumothorax.

**Yellow** signals medium priority, e.g. Isolated Simple Femur fracture.

**Green** is used for ambulatory patients, e.g. Isolated Abrasions, contusions, sprains.

**Black** for dead or those with minimal chance of survival, e.g. Massive Head Injuries, 95% coverage with third degree burns.

(Momeni, 2007, slide 14)



A man with glasses, wearing a blue t-shirt and a white baseball cap, is smiling and holding a large blue sign with white text. The sign contains a medical question and four multiple-choice options. The background is a simple room with a white door and a light-colored wall.

# Which patient do you see first?

- A. A diabetic with glucose 12 mmol/L
- B. A COPD patient with SpO<sub>2</sub> 85% on 4L O<sub>2</sub>
- C. A post-op with pain 8/10
- D. A patient asking for discharge papers



# TRIAGE:

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1. Scene Safety

2. Quick Assessment (30-60 seconds per patient):ABCDE

[use START: Simple Triage and Rapid Treatment]

3. Assign a Color Code Tag: place on the visible part of the patient (wrist, neck, ankle, clothing)

4. Move on immediately to the next patient (an ongoing process; retriage later if conditions change)



# MANAGEMENT:YOUR "NEW" JOB DESCRIPTION

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- Patient Care (in designated areas)
- Equipment (Set-up, manage, and conserve)
- Directing Others (Volunteers, "Greens")
- Administrative Responsibilities:
- Leadership (You are all leaders now)
- Communication (Clear, calm)
- Coordination (Patient flow, "one way flow")
- Staffing (Using the "Reserved Personnel Pool")

# MANAGEMENT (THE "POST-IMPACT" PHASE)

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The Event is Over. The Work is Not.

- Institutional Recovery
  - Restock. Repair.
  - "Hot Wash" / Debrief: What went right? What failed?
  - This "evaluation... is an ongoing process" that feeds the next plan.
- Human Recovery
  - This is the hidden and most critical part of recovery.
  - Caring for the caregivers.

# RECOVERY:THE HIDDEN TOLL ON STAFF

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- Be FORE-WARNED about the reactions to stress.
- Immediate Reactions:Anxiety, "doubts about personal ability to cope," frustration, physical (nausea, tremors).
- Delayed Reactions: Grief, guilt, irritability, "wanting to fix blame," withdrawal, sleep disturbances.
- The Modern Term (Verifiable Research): Moral Injury
  - It's not PTSD (fear). It's a guilt/shame wound.
  - It's the wound from making that "unthinkable" triage choice.
  - It's the wound from knowing the right care but not having the resources (e.g., COVID).



# RECOVERY:THE COPING STRATEGY ...HOW WE MANAGE THE HUMAN AFTERMATH

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- Constant monitor of staff for signs of stress.
- Small break intermittently for staff.
- Rotate personnel from stressful areas.
- Provide on site counseling.

## Modern Practice (Psychological First Aid):

- A peer-to-peer model for us to use on each other.
- LISTEN: (Don't force talk, just be present).
- PROTECT: (Get them a coffee, cover them for 5 minutes).
- CONNECT: (Connect them to resources, or just to another human).



# CONCLUSION:YOUR KEY TAKEAWAYS (THE "SO WHAT?")

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- Preparedness is NOT a binder. It's an action. It starts with drills (Institutional) and your "Go-Bag" (Personal).
- The Rules Will Change.You will move from "Normal" nursing to "Disaster" nursing.
- Your New System is ICS. (One Boss, One Job).
- Your New Ethic is Triage. ("Greatest Good for the Greatest Number").
- The Human Cost is Real. Prepare for Moral Injury. Look after your team.
- The goal is to save the greatest number of lives not to provide definitive or specialized care for each individual.

# ABBREVIATIONS

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- ICS: Incident Command System
- EMSS: Emergency Medical Services System
- LASEMA: Lagos State Emergency Management Agency
- LASAMBUS: Lagos State Ambulance Service



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