Fifteen Minutes to 50 Patients —
Rapid Response to Mass Casualty
Incidents

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Christopher Riccardi has developed and implemented enduring emergency management programs for three Southern California hospitals. Chris is an instructor for the Hospital Association of Southern California’s Hospital Disaster Management Training program educating hospital leadership throughout Los Angeles County in managing disaster mitigation, preparedness, response and recovery strategies. He is a Disaster Healthcare Volunteer representing the Los Angeles County Surge Unit. Chris has led the collaboration to develop a comprehensive disaster response initiative as part of the Emergency Department Disaster Task Force since 2005. Chris has developed a comprehensive, redundant disaster communications plan for both Providence Little Company of Mary Medical Centers and the Providence Health and Services system.

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Reflection

“Prepare for the unknown by studying how others in the past have coped with the unforeseeable and the unpredictable.”

General George S. Patton

Disaster Response Failures

- Hospital Disaster Plan?
- Unknown roles & tasks
- Poor communications
- Unclear patient pathways
- Lack of relevant supplies
- “That’s what it says, but that’s not what we do.”
Successful Solution

15 Minutes to 50 Patients
- Rapid deployment of supplies/personnel
- Designated response
- Removes “fear factor”
- Tested/vetted through over 30 exercises and actual events
- Plug and play model
- Implemented in 4 So. Cal hospitals

Event Onset
First 15 Minutes — Key Functions

- Emergency Department
- Pharmacy/Radiology
- Public Safety
- Hospital Leaders
- Inpatient Departments
- Facilities/Plant Operations

Initiation
Code TRIAGE

ED often has first info
- EMS radio call
- MAC/ReddiNet notification to ED
- Unusual surge of similar type patients presenting to triage

Charge RN and MD
- Evaluate needs and contact:
  - House Supervisor/Admin On Call (AOC)

House Supervisor/AOC:
- PBX for “Code Triage” overhead page
Initiation
Roles Assigned

Go-Kits in Radio Room

Loading Dock

Actions
Emergency Department Role Assignments

- Disaster Lead – RN
- ED Charge – RN
- Set-up & Decon – Techs/CCTs
- Triage – 2 RNs
- Immediate Team
  - 2 RNs + MD + Reg + RT + EMT
- Delayed Team
  - 2 RNs + MD + Reg + RT + EMT
- Minor Treatment Team
  - 2 RNs + MD + Reg + EMT
0–5 Minutes

5–10 Minutes

Immediate

Delayed
5–10 Minutes
Public Safety

Access Control

Ambulance Drop-Off

Actions
Public Safety

0–15 Minutes
- Facility Lockdown
- Access Control

As Patients Arrive
- Traffic Control
- Monitor Egress

Crowd Control
- Ongoing/PD Assistance
15 Minutes
External Treatment Areas

Set Up!
Actions
Emergency Department First 15 Minutes

- Roles assigned
- Triage (internal) closed!
- SuperTrack emptied into waiting room
- Patients processed for discharge or admit
- Floor RNs/CNAs come for immediate admissions
- Consolidate remaining patients
- Count of available beds to Disaster Lead
- ED doors secured!

Actions
Hospital Leaders First 15 Minutes

Command Center Established

- Coordinates resources
  - Equipment
  - Personnel
  - Patient flow into hospital departments
  - Ancillary support services

- Communicates with
  - ED Disaster Lead directly
  - All departments
Actions
Hospital Leaders 10–15 Minutes

- Safe patient hand-off
- Two RNs from each unit report to ED
  Lead (one to transfer ED patients to unit-one to assist in patient care in ED
- Facilitate patient flow
- Prepare for large number of admits
- Reassign staff to accommodate patients
Keep In Mind…

- Not just a patient care process
- Facility needs
- Utilities functional?

Actions
Facilities/Plant Ops First 15 Minutes

- Immediate facilities structure evaluation
- Immediate systems check
- *(True assessment=1.5–2 hours)*
- Check structural integrity
- Report findings to HCC
  - Operations Section Chief
  - Infrastructure Liaison Officer
- Deputize on-site construction personnel to assist
Facilities/Plant Operations
What next?

- Assist with decontamination
- Assist with infection control
- Assist with patient transport
- Assist as runners
- Ensure utilities remain viable

Waiting for Patients
As Victims Arrive
TRIAGE

- 5–10 second evaluation (START/JumpSTART)
  - Respiration
  - Perfusion
  - Mental Status
  - Injury Extent
- Confirm or change EMS triage status
- Put colored tag/ribbon on patient
  - Red = Immediate
  - Yellow = Delayed
  - Green = Minor
- Direct to pathway for appropriate care
As Victims Arrive
Treatment Area Teams

- RNs + MD + Resp + Registration
- ABC (CAB) level of care + standing orders
- Labs drawn while IV started
- Triage tag + assigned packet = medical record
- Triage within care areas for victim movement
  - Critical care/OR/Tele/x-ray/ED/etc.
  - Update lead every 10 minutes

As Victims Arrive
External Treatment Areas
Treatment Area(s)

PLCMMC Torrance          PLCMMC San Pedro

Patient Care
Direct OR Admits! 
Utilize ED As Next Option…

Patient Flow…

- Triage all the time everywhere
- Immediate first, then delayed
- Common sense!!!
- Anticipate needs
  - Equipment
  - Personnel
  - Movement
Critical Elements

- ABC (CAB) level of care until hospital can accommodate
- Patient flow does not change even if location does
- First 15 minutes of response sets stage for entire response
- Roles stay in assigned areas
- Lab/X-ray results stay with patient

Transitioning into Disaster Mode

Easy if you are prepared…

- Disaster planning/training
- Disaster exercises
- Hospital layout
- Common sense
- Do the best you can under the circumstances!
Toolkit

- Quick Reference for ED
- Treatment Area Checklist
- Nursing Unit’s Flow Chart
- Maps for Vests
- Job Action Cards for Vests
- Med Orders
- POM Code TRIAGE Assessment
- Emergency Resource Inventory

Quick Reference ED

- ED Notified via MAC/Reddi-Net
- Notify House Supervisor via Phone/Pager/SpectraLink
- House Supervisor MUST Initiate Code TRIAGE with PBX
- ED Clinical Supervisor to Assign Staff for Response
- ED to Establish External Treatment Area for Incidents involving Mass Casualties (on Loading Dock)
- ED Staff (assigned by ED Clinical Supervisor) to Establish Minor Treatment Area in CHE
- Don Personal Protective Equipment (PPE)
Quick Reference ED (cont.)

- **Color-Coded Carts** contain: Tarps/Canopies/Cots
  Located in Supply Shed on Loading Dock (key to ALL trailers & storage in ED)
- **Additional Cots** in Dialysis Room (in CHE*Code=5600)
- ED to **Clear Out Existing** (Rapid Admission to be Completed by Units) **Patients** to be Ready to Receive “NEW” Victims
- **Turn On** Hand Held Radio to Communicate Info/Needs to Hospital Incident Command Center
- **Update MAC and Incident Command** as New Info is Received

MCI Treatment Areas
First 15 Minutes

- 10–20 gurneys to staging
- 10–20 wheelchairs to staging
- Shower trailer moved & set up
- Set up cots
- Set up canopies
- Signs posted
- Supply carts out
- 20 IV lines ready
- 20 oxygen tanks ready
- PPE donned
- Treatment area teams ready
- Radio checks
Nursing Units

[Diagram of DISASTER RESPONSE flowchart]

Note:
- Nurse #1 - Transport ED Admits to Unit
- Nurse #2 - Remain in ED to assist in Patient Care
- Mint Units (Tele/Med Surg/etc...) will be created in ED

Ground Floor/Set-Up Map

Vests

[Map images]
POM Checklist
CSHE/ASHE Tool

POM CODE TRIAGE Building Status Report

Facilities/POM
Understanding Capabilities

Emergency Resource Inventory

<table>
<thead>
<tr>
<th>Resource/Utility</th>
<th>Inventory (On-Site)</th>
<th>Capabilities</th>
<th>Rationing Suggestions</th>
</tr>
</thead>
<tbody>
<tr>
<td>WATER</td>
<td>20,000 Gal. Rev. 9,000 Gal. in piping system 32,000 Total Gallons on site</td>
<td>3.04 Staff 1000 Volunteers 590 Med Staff (279 beds x 2) 455 NURS 1,158 days 6.6 days (156 hrs)</td>
<td>Limit Pat. Balancing Elevator (as needed) Use Hand Sanitizer for hand washing Use Full Order for staff (Bag Hand Sanitizer) of 6oz bottle for absorption</td>
</tr>
<tr>
<td>Medical Closures (Placed)</td>
<td>Medical Air: Medical Gas: Vacuum: Medical suction</td>
<td>On Emerg Power On Emerg Power On Emerg Power</td>
<td>See Generator Capabilities Below</td>
</tr>
<tr>
<td>FUEL (Diesel)</td>
<td>10,000 North Tower 1,000 West</td>
<td>77.86 hrs Full Power 215.8 hrs Full Power</td>
<td>PCAT To Ration Load Shedding Possible to Maximize Efficiency/Prolong Fuel Supply</td>
</tr>
<tr>
<td>Generator Capabilities (24 Hours)</td>
<td>41,200 Gallons Diesel FULL Load 36 75 % 36</td>
<td></td>
<td>Adjust Usage per Capabilities Chart</td>
</tr>
<tr>
<td>FUEL (Gasoline)</td>
<td>220 inches (main) 190 inches (reserve)</td>
<td>Gasoline Generators located in</td>
<td>Utilize Signage (also located in lobby) to warn gasoline from vehicles on site</td>
</tr>
<tr>
<td>Liquid Oxygen</td>
<td>Daily Use—3.5 Inches</td>
<td>50 days (1200 hrs) 50 days (720 hrs)</td>
<td>Utilize Liquid O2 to replenish E and H cylinders as needed</td>
</tr>
</tbody>
</table>
Disaster Mode … Simplified!

Comes down to **TWO** key components:
- Patient **CARE**
- Patient **FLOW**

Thank You for the Opportunity
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