Common Problems in Mass Casualty Management

Nakhon Tipsunthonsak, M.D.

Khon kaen Trauma Center
Thailand
The past experiences evaluation

• The most unorganized situation
• There were considerable number of people involved
• Lack of proper coordination
• Shortness of equipments
  – Transferal vehicle, apparatus
  – Communication system
• No field commander
Delayed information

- Diminish to inform rescue team
- Have no information center for mass casualty
- Information center itself has no competency to evaluate the severity of situation
- Can not alert the team timely
- No network be established
Delayed information

• The rescue network can not work promptly around the clock
• Lack of effective and appropriate communicable equipments
• No alert-responsible person for 24 hrs shift
• Delayed spurting out in real situation
Improper victims management

• Move out casualties without first aid care
• Do not have proper transferring system
• Shortness of appropriate apparatus
• Uncontrollable excitement among the teams themselves
• Malpractice for proper management
• The team didn’t realize their roles and boundaries
Triage System

• Flooding of victims can not be performed proper triage
• Inappropriate area available for screening
• Rescue teams knew nothing about the mass casualty: number of victims, severity
• First one first serve
• Pooling of unnecessary medical personnel for one injury
Triage System

- Lack of awareness about the other hundreds emergence victim
- Some practitioners lack of experience for massively care management
- Using normal medical pathway for mass casualties
No command post

- First rescue team has to establish the working area and command post
- Traffic management for transferal to the hospitals
- Communication system management
  - Proper equipments and sufficient channel of communication
  - Coordinators provided both at site and terminal cares
No Field Commander

• Field commander should manage, coordinate and give order to the teams
• The independent role should be established and be accepted by the teams
• The appointed commander must present at the site immediately
• The field commander has to realize his roles and performs strongly leading the teams throughout the hazardous situation
Hospital Care Management
For Mass Casualty
Multiple Casualty

• Stress local resource

• Triage is directed to identify the most life-threatening injury → A B C
Mass Casualty

- Overwhelm the local resource

- Triage is directed to identify the greatest probability of survival
Hospital Mass Casualty Planning Committee

• Produce and review plans
• Arrange the training program to staff
## Level of Severity

<table>
<thead>
<tr>
<th>Level</th>
<th>Severity</th>
<th>Number of Patient</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Emergent</td>
</tr>
<tr>
<td>I</td>
<td>Mild</td>
<td>&lt; 5</td>
</tr>
<tr>
<td>II</td>
<td>Moderate</td>
<td>5 – 10</td>
</tr>
<tr>
<td>III</td>
<td>Severe</td>
<td>&gt; 10</td>
</tr>
</tbody>
</table>
Role of a Hospital

1. Provide site team
2. Act as a receiving hospital for casualties brought from the disaster site
3. Receive patients transferred from other hospital
4. Act as the triage hospital and transport to other hospital
Lines of Authority

Director

Commander

Zone Manager  Zone Manager  Zone Manager
Initiation of the procedure

Disaster

Police / By Stander

Command Control Center

“1669”

Person in charge at the time

Confirm

Initiate the disaster plan
Command center

- Set up command center
- Handle and coordinate all internal communication
Admission

- Disaster files
  - Admission sheet
  - X-ray form
  - Lab
  - Bag
- Serial number
Triage

• A process by which management of multiple patient casualties is prioritized
Principle of Triage

1. Degree of life threat posed by the injury (ABCDEs)
2. Injury severity
3. Salvage ability
4. Resource
5. Time, distance, environment
Principle of Triage

• Often based on incomplete information
• Decision made on the best information available
• Make decision by surveying an entire situation at a distance
• Important concept is to avoid indecision
Triage Coding

ABC – OK
Conscious, well oriented ➔ Green
ABC – OK
Confused ➔ Yellow
ABC – not OK
Unconscious or confused ➔ Red
Responsibilities of Individual
Zone C Severe
- พยาบาล Surg.
- พยาบาล Ortho.
- พยาบาล Med.
- พยาบาล ICU, Surg.

Zone B Moderate
- พยาบาล Surg.
- พยาบาล Ortho.
- พยาบาล ER.
- พยาบาล Uro.
- พยาบาล Med.
- พยาบาลฉุกเฉิน
- พยาบาล OR.

Zone A Minor
- พยาบาล Obs-gyn.
- พยาบาล ER.
- พยาบาล OPD.
- พยาบาล ENT.
- พยาบาล FM.
- พยาบาล Obs-gyn.

Zone D Dead
- พยาบาล Eye.
- พยาบาล ENT.
- พยาบาล ER.
- พยาบาล Eye.
Mass Casualty Zoning

Zone C Severe
- 骨科 Surg.
- 骨科 Ortho.
- 伤害 ER.
- 伤害 Uro.
- 伤害 Med.
- 伤害 OR.

Zone B Moderate
- 骨科 Surg.
- 骨科 Ortho.
- 伤害 ER.
- 伤害 Uro.
- 伤害 Med.
- 伤害 OR.

Commander
- 院长 / 董事长
- 伤害 ER.
- 伤害 Uro.
- 伤害 Med.
- 伤害 OR.

Zone A Minor
- 伤害 Obs-gyn.
- 伤害 ER.
- 伤害 OPD.
- 伤害 ENT.
- 伤害 FM.
- 伤害 Obs-gyn.

Zone D Dead
- 眼科 Eye
- 伤害 ENT.
- 伤害 ER.
- 伤害 Eye

You are here

Entrance

Exit
Mass Casualty Zoning

Zone C: Severe
- Surgery (Surg.)
- Orthopedics (Ortho)
- Med. (Med.)
- Pediatric (Ped.)
- ICU
- ER
- Pediatric ICU (Ped. ICU)
- Pediatric Med. (Ped. Med.)
- Pediatric ER (Ped. ER)
- Pediatric TM (Ped. TM)
- Pediatric OPD (Ped. OPD)

Zone B: Moderate
- Surgery (Surg.)
- ENT
- Urology (Uro.)
- Med. (Med.)
- Neonatal Care
- OR (OR)

Zone D: Dead
- Eye
- ENT
- Pediatric ER
- Pediatric Eye

Commander
- Admin / Logistics
- Trauma Team
- Emergency Room
- Pediatric ER
- OR

Zone A: Minor
- Obstetrics-Gynecology (Obs-gyn.)
- Pediatric ER
- Pediatric OPD
- Pediatric ENT
- Pediatric FM
- Pediatric Obs-gyn.

Exit

You are here

Entrance

S

KKH

jica
The most importance is preparedness

- Emphasize all staffs in the importance of preparedness
  - Reducing the improper practice
  - Competence to face the real situation
  - Staffs know what their roles ARE
- Consistency in simulation rehearsal
Questions for Proper management

• Center for information alert should be....
• How can we establish training system for volunteer in proper rescue and transferal care?
• How can we make an effective triage system standardized?
• Who should be field commander, and how can he/she be trained for disaster management?