Review of Region X Multiple Patient Plan

JUNE / JULY 2015 CE

CONDELL MEDICAL CENTER EMS SYSTEM
SITE COE: 107200E-1215

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Objectives

Upon successful completion of this module, the EMS provider will be able to:

1. Define disaster.
2. Describe the National Incident Management System (NIMS).
3. Compare the advantages and disadvantages of using SMART tags.
4. Describe the function and process of using color coded triage tags.
5. Differentiate the purpose and function of triage, treatment, and transportation sectors.
Objectives cont’d

6. Describe the Region X Multiple Patient Plan and expectations per level of activation.

7. Compare the START and JumpSTART triage processes.

8. Review the Field Provider Log Form and After Action Report.

9. Given a variety of triage scenarios and using the START and JumpStart process, practice triaging victims.


11. Actively participate in a table top drill exercise.

12. Successfully complete the post quiz with a score of 80% or better.
Defining Disasters

Most can accept a disaster is anything that overwhelms your resources at any given time.

Definitions vary agency to agency and situation to situation.

Resources can vary for EMS, hospitals, and other emergency responders based on day of week and time of day.

Difficult to define a disaster by set numbers or types of patients as this target can move hour-to-hour and day-to-day.
Collaborative Practice

Must be able to work across borders when additional resources are required

Need use of uniform terminology and processes if we expect to be able to work effectively pooling resources

Unless you practice, responses will not become habit

Most of our responses in a disaster will start out as automatic, at least for the first few minutes of response, and will likely mirror what you do on a day-to-day basis
National Incident Management System - NIMS

A comprehensive, standardized system

Came about as a Homeland Security Presidential Directive

Allows for a method for controlling, directing, and coordinating emergency response resources involving multiple agencies
Incident Command

The person running the entire incident

Ultimate authority for decision making rests with this person

Can delegate functions and responsibilities
  ◦ Degree of plan activated often dictated by the extent and degree of the incident

First arriving unit establishes command until relieved

Will take time to mobilize resources
  ◦ The earlier the decision is made to activate the plan, the better
Review of Structure of Scene Management

Each department should be reviewing this material using in-house resources

Management should be “at the table” dialoguing with all department members
- Appreciation of each others roles helps encourage smooth processes

Discuss your own department’s guidelines of activating incident command
- How and who do you notify and with what information?

Discuss the transition from the first unit on the scene to a person of higher authority taking over
- How does your department make this transition happen?
EMS Branch of Incident Management Response

Identifying sectors and persons in charge of needed sectors is an example of delegation by command.

Need to identify the method and process of sector “supervisor” communication with command:

◦ If via radio, what frequency is being used?
◦ If using assisting departments, do you all have the same frequency and know what to use?
◦ How do you identify the main resources per sector?
  ◦ Vest, arm band, helmet?
“Windshield” Survey

Facilitates decision making when pulling up to a scene

You may not have an exact account of all the details but the sooner you call for help and resources, the sooner they can be mobilized

The sooner the hospital is notified, the more time the staff have to prepare to receive the patients

◦ This piece of notification is often done later than other initial notifications

◦ Hospital staff would prefer earlier notification to have time to adequately prepare and recruit appropriate resources
Use of Resources

Understand priorities

Setting up command is important but patient care takes precedence

Must start triage
- Sick and injured patients can’t wait for all the official sectors to be established before being tended to

Need transporters to begin to move patients to ambulances or treatment areas

Someone needs to coordinate the arrival of ambulances

Need to determine transport destinations
Disaster Management Sector - Triage

Initiated by first responding units
  ◦ Therefore, EVERYONE must be able to perform triage

Goal to do the most good for the most people

Need to determine
  ◦ Which patients need immediate help
  ◦ Which patients will survive even with a delay in care
  ◦ Which patients will die regardless of what you do

Initial triage using START process is designed to take about one minute per patient
  ◦ START – Simple Triage and Rapid Transport
START Triage Categories

Red
- Immediate care and intervention required

Yellow
- Patent can tolerate some delay in care and intervention

Green
- Minor injuries; minimal care and interventions required; can tolerate a delay

Black
- Deceased or expectant to die regardless of care or intervention provided
SMART Triage Tag

Designed to show one color at a time

Can be refolded to reflect changes in patient condition

- Assessment process completed at each link of the incident management process as patient moved from one point to the next

Comes with plastic pocket with strap for securing to patient (i.e.: wrist)
SMART Triage Tags - Advantages

Visual cue to patient priority
Prevents re-triaging of same patient during initial triage phase
Areas provided to add brief patient care notes
Can serve as tracking system
SMART Triage Tags – Disadvantages

Tags can be damaged by weather
Patients can change their own status by refolding the tags
May not be legible at night
Tags may become separated from the patient

Any other disadvantages?
And what would you do about them?
Disaster Management Sector - Treatment

Treatment sectors will need to be established if patients cannot be transported immediately from the scene.

Patients should be segregated into treatment areas based on their category – Red – Yellow – Green - Black

Secondary triage should be performed
  ◦ As an ongoing process
  ◦ As patients are held in treatment to determine priority for transportation off the site
  ◦ Used to determine a change in the patient’s condition
Disaster Management Sector - Transportation

Supervisor of this sector must coordinate with Staging and Treatment

- Staging
  - Resources (i.e.: ambulances, man-power, and equipment) available from this area
  - Recruited and routed as needed

- Treatment
  - Patient movement must be coordinated from treatment to transportation

Important to keep accurate records of hospital destination for each patient transported
Transportation Sector

Important to communicate with appropriate hospital dependent on level of plan activated

Communicate early
  ◦ Can help with determining destinations for the patients if given enough time to perform these tasks

Dependent on the level of plan activated, can remind transporting rigs to “follow SOP’s – no hospital contact required” (medium and large scale incident) or to “provide abbreviated report on each patient” (small scale incident)
Region X Multiple Patient Plan

A plan endorsed by
- MABAS Divisions covered within the plan
- Medical Directors of each EMS System in the Region
- Disaster Management Services Committee of the Region

Plan approved by
- Region X Trauma / EMS Advisory Committee
- Illinois Department of Public Health (IDPH)
Region X Multiple Patient Plan - Purpose

To enable Fire/EMS agencies and Region X hospitals to respond effectively and efficiently to multiple patient incidents

To avoid taxing resources of any single pre-hospital provider or healthcare facility

To provide optimal patient care

This plan is to supplement any mass casualty or disaster plan your department may also have in place
Region X Plan Contents

Scalable to size according to the events occurring

Classification system to promote orderly disbursement of patients

Uniform operational guideline for handling patients within the structure of incident command system (ICS)

Communication network linking Fire/EMS agencies with hospitals

Lists of responsibilities for responding EMS providers and hospitals

Responsibilities of the Resource Hospital as hospital command

Basic guidelines and management to emergently evacuate a healthcare facility
Plan Layout

Small Scale Incident
◦ 3-6 ambulances

Medium Scale Incident
◦ 7-10 ambulances

Large Scale Incident
◦ More than 10 ambulances

Emergent Evacuation of Healthcare Facility
◦ Patients requiring medical care who need evacuation (i.e.: from a nursing home) to another site
Definitions of Incident Types

“Business as Usual”
- Can be managed with routine resources
- Usually involves 3 or less ambulances
- Incident usually contained quickly and terminates relatively quickly

“Small Scale Incident”
- Requires more than routine resources
- Usually involves 3-6 ambulances
Definitions of Incident Types cont’d

“Medium Scale Incident”
- Capabilities exceed typical initial emergency response
- Appropriate Incident Command System (ICS) added based on complexity of the situation
- Some or all of Command and General Staff positions may be activated
- Incident may extend for a lengthy time period

“Large Scale Incident”
- Generally extends beyond capabilities of local control
- Incident usually extends over an extended period of time
- Most or all of the Command and General Staff positions filled
Less Than 3 Ambulances – “Business As Usual”

Coordinate your hospital communication with your typical receiving hospital

The earlier the call, the quicker the hospital can be of assistance

◦ Even if the first call doesn’t have all the information and details, early notification is always best!

Have clear communication with the hospital

◦ What exactly do you want to convey in the communication?
◦ How many patients can that hospital take?
◦ If the hospital cannot take all of your patients, you will need this information as soon as possible to arrange alternative destinations
Region X Multiple Patient Management Plan

The following slides outline the various levels of response based on the individual situation

Each ambulance should have the guidelines available in the rig to be used as an immediate reference tool

Review of this material should increase the familiarity with the plan

Remember – the first responding unit will be acting as command (until relieved) and will need to activate the plan

◦ The longer you take to make the first call, the longer it will take for additional resources to respond
Small Scale Incident –

Most likely and most common of the 3 scales to activate

3 - 6 ambulances

Contact closest appropriate hospital to determine how many patients they can receive

◦ “We are on the scene of a small scale multiple patient incident”

Provide initial information

✓ Description of event
✓ Actual number of patients
✓ Brief patient condition
Region X Small Scale Incident – Category I *Trauma* Patient

<table>
<thead>
<tr>
<th><strong>TRAUMA</strong></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Traumatic Arrest, Isolated Burns &gt;20%: Transport to closest Trauma Center</td>
<td></td>
</tr>
<tr>
<td>NO AIRWAY: Transport to CLOSEST comprehensive Emergency Department</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>CATEGORY I</strong></th>
<th><strong>TYPE OF</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Unstable Vital Signs:</td>
<td>Transport to <strong>highest</strong> level</td>
</tr>
<tr>
<td>• Systolic BP ≤ 90 x 2 (Peds ≤ 80 x 2)</td>
<td>Trauma</td>
</tr>
<tr>
<td>• Glasgow Coma Scale ≤ 13 or with blunt head injury</td>
<td>Center(s)</td>
</tr>
<tr>
<td>• Respiratory Rate &lt; 10 or &gt; 29</td>
<td>within</td>
</tr>
<tr>
<td>Anatomy of Injury:</td>
<td>25 minutes</td>
</tr>
<tr>
<td>• Penetrating injuries to head, neck, torso or groin</td>
<td></td>
</tr>
<tr>
<td>• Combination trauma with burns ≥ 20%</td>
<td></td>
</tr>
<tr>
<td>• Two or more proximal long bone fractures</td>
<td></td>
</tr>
<tr>
<td>• Two or more body regions with potential life/limb threat</td>
<td></td>
</tr>
<tr>
<td>• Unstable pelvis</td>
<td></td>
</tr>
<tr>
<td>• Flail chest</td>
<td></td>
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<tr>
<td>• Limb paralysis and/or sensory deficits above the wrist or ankle</td>
<td></td>
</tr>
<tr>
<td>• Open and depressed skull fractures</td>
<td></td>
</tr>
<tr>
<td>• Amputation proximal to wrist or ankle</td>
<td></td>
</tr>
</tbody>
</table>
### Region X Small Scale Incident – Category II *Trauma* Patient

<table>
<thead>
<tr>
<th>Mechanism of Injury:</th>
<th>TYPE OF H</th>
<th>Co-Morbid Factors:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Ejection from automobile</td>
<td>Transport to closest Trauma Center(s)</td>
<td>• Age ≤ 5 without car / booster seat</td>
</tr>
<tr>
<td>• Death in the same passenger compartment</td>
<td></td>
<td>• Bleeding disorders or on anticoagulants</td>
</tr>
<tr>
<td>• Motorcycle crash &gt; 20 mph or with separation of rider from bike</td>
<td></td>
<td>• Pregnancy ≥ 20 weeks</td>
</tr>
<tr>
<td>• Rollover (unrestrained)</td>
<td></td>
<td>• Renal disease requiring dialysis</td>
</tr>
<tr>
<td>• Falls ≥ 20 feet (Peds falls ≥ 3X body length)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Pedestrian thrown or run over</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Auto vs. pedestrian / bicyclist with &gt; 5 mph impact</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Extrication &gt; 20 minutes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• High speed MVC: Speed ≥ 40 mph, intrusion ≥ 12”, major deformity ≥ 20”</td>
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<td></td>
</tr>
</tbody>
</table>
Region X Small Scale Incident – Category III *Trauma* Patient

<table>
<thead>
<tr>
<th>CATEGORY III</th>
<th>TYPE OF HOSPITAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other simple trauma</td>
<td>Transport to closest hospital(s)</td>
</tr>
</tbody>
</table>
## Region X Small Scale Incident – Medical Situation

<table>
<thead>
<tr>
<th>TYPE OF HOSPITAL</th>
<th>CATEGORY I</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transport to closest Emergency Department(s)</td>
<td>UNSTABLE</td>
</tr>
<tr>
<td></td>
<td>-Altered mental status</td>
</tr>
<tr>
<td></td>
<td>-Systolic BP ≤90 mmHg</td>
</tr>
</tbody>
</table>
### Region X Small Scale Incident – Medical Situation

<table>
<thead>
<tr>
<th>TYPE OF HOSPITAL</th>
<th>CATEGORY II</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transport to closest Emergency Department(s)</td>
<td><strong>STABLE</strong></td>
</tr>
<tr>
<td></td>
<td>• Patient alert</td>
</tr>
<tr>
<td></td>
<td>• Skin warm and dry</td>
</tr>
<tr>
<td></td>
<td>• Systolic BP &gt;90mmHg</td>
</tr>
</tbody>
</table>
Small Scale Incident

Patient disbursement
  ◦ Coordinated by field command
  ◦ Transported to appropriate Level I or Level II as indicated

Triage tags NOT necessary

Abbreviated radio report by transporting unit
  ◦ “We are transporting from a small scale multiple patient incident”
  ◦ Add abbreviated report on each patient in your rig

Complete regular patient care reports for each patient
Small Scale Incident

If closest hospital cannot take all the patients, Incident Command will assign each transporting ambulance a destination hospital.

Transport no more than 2 patients to each remaining hospital

- The exception is when the receiving hospital agrees to take more patients.
- The contacted hospital ECRN can assist in communication with the desired hospital to confirm number of patients prior to transport.

When the number of ill or injured exceeds routine transport to the nearest hospitals, contact the Resource Hospital to coordinate remaining distribution.
Medium Scale Incident
7 – 10 ambulances
Contact Resource Hospital
  ◦ “We are on the scene of a medium scale multiple patient incident”
Provide initial information
  ✓ Description of event
  ✓ Estimated of number of patients
  ✓ Estimated patient acuities – Red, Yellow, Green
  ✓ List of closest hospitals to the site
  ✓ Provide the Resource Hospital with a call back number
Medium Scale Incident

Resource Hospital will coordinate transportation destination of patients and provide this information to the field contact person.

Triage tags used

START triage used

NO contact between transporting rig and receiving hospital

- Transportation Officer to provide Resource Hospital with number of patients, acuity level, destination, and ETA
- Resource Hospital to transmit information to receiving hospital

Complete regular patient care reports for each patient
Medium Scale Incident

Maintain communication with the Resource Hospital until all patients have been cleared from the scene.

For each transporting ambulance, provide to Resource Hospital:

- Transporting ambulance company
- Acuities of patients being transported
- Destination hospital

Resource Hospital will contact the receiving hospital.
Large Scale Incident

More than 10 ambulances

Contact Resource Hospital
◦ “We are on the scene of a large scale multiple patient incident”

Provide initial information
✓ Description of event
✓ Estimated number of patients
✓ Estimated patient acuities – Red, Yellow, Green
✓ List of closest hospitals to the site
Large Scale Incident

Resource Hospital will coordinate transportation destination of patients

Triage tags used

START triage used

NO contact between transporting rig and receiving hospital
  ◦ Transportation Officer to provide Resource Hospital with number of patients, acuity level, destination, and ETA
  ◦ Resource Hospital to transmit information to receiving hospital

Triage tags serve as report – no patient care reports need be written
Hospitals on By-pass

Contact the closest appropriate hospital regardless of bypass status to discuss patient disbursement during Small Scale Incident

“Small Scale Incident”
- After conferring with field personnel, ED physician or designees will determine if diversion is necessary
- By-pass hospital may accept patients or provide diversion directions

“Medium or Large Scale Incident”
- Hospitals on by-pass MUST receive patients
- Hospitals cannot divert patients from these scale incidents
Emergent Evacuation of Healthcare Facility

This plan might be necessary due to variety of problems
- External forces like weather, flooding
  - Healthcare facilities in New Orleans during hurricane Katrina
- Internal forces like structure collapse, loss of power, fire
  - Zion hospital that suffered a plan crash into their upper floors

This plan takes pre-planning with other community resources
Emergent Evacuation Healthcare Facility

Patients being evacuated from one facility need medical care

Resource Hospital contacted
- “We are on the scene of an emergent evacuation of a healthcare facility”

Provide initial information
- ✓ Description of event
- ✓ Estimated number of patients
- ✓ Closest hospitals
- ✓ Potential alternative receiving facilities
Emergent Evacuation Healthcare Facility

Resource hospital works in conjunction with field command and administration of affected facility to determine transportation destination(s)

Triage tags used

Reverse triage performed within facility

✓ First remove the less ill and sick
  ◦ Some facilities discharge the less ill/sick when bed availability is necessary for the sicker

✓ Now concentrate on removing the sickest and most incapacitated

✓ Perform START triage prior to transport
Emergent Evacuation Healthcare Facility

NO contact between transporting rig and receiving hospital
- Transportation Officer to provide Resource Hospital with number of patients, acuity level, destination, and ETA
- Resource Hospital to transmit information to receiving hospital

Triage tags serve as report – no patient care reports need be written

Helpful to have staff from sending facility available at receiving facility

Patient care records may be transported with patients to receiving hospital(s)
START Triage

The triage system adopted for use throughout Illinois

Triage process follows an algorithmic, objective process

- Starts by separating the sickest from the not-so-sick
  - Request all ambulatory patients to move to another identified location
  - If patient can walk, initially considered a “GREEN”
  - All walking patients will need to be triaged in the new location to be tagged
- Each remaining patient at the site can now be triaged per START triage or JumpStart

Uses SMART triage tags as the tagging mechanism
JumpStart Triage

Developed as an objective tool for use with the pediatric population
✓ Reduces emotional burden on triage personnel caring for children
✓ Allows decisions to be made based on facts and not feelings
✓ Reduces over-triage; improves resource allocation process

Designed as a parallel to the START system

Takes into consideration the anatomical and physiological differences between adults and children
◦ Example: Respiratory rates in children are faster than adults

Intended to be used for children up to approximately 8 years of age or before puberty
Difference Between Triage Processes

**START TRIAGE**

Airway – Not breathing
- If repositioning not helpful, tag BLACK and move on

Perfusion/circulation check –
- Capillary refill and peripheral pulses

Mental status -
- Evaluate ability to follow simple commands

**JUMPSTART TRIAGE**

Airway – Not breathing
- Reposition airway and provide trial of 5 ventilations
- If breathing does not return, tag BLACK and move on

Perfusion/circulation check –
- Only uses peripheral pulses

Mental status –
- Uses AVPU scale
Scene Size-Up

All scene responses start with this important step

Assure safety for responders
  ◦ Determine the scene is safe prior to entering
  ◦ If there are multiple patients with the same medical complaint, consider a hazmat, WMD, or CO poisoning situation
  ◦ Take BSI precautions

Determine the number of patients

Activate a plan early

Establish command, medical officer, and triage officer
Begin START Triage Process

Start Triage where you stand

Remove the “walking wounded” from the scene
- Announce “if you can stand up and walk, move to...“ (state the alternative location)

Consider using “waking wounded” to assist as necessary especially until your resources are in place

Now sort through (i.e.: “triage”) those that are left
- Use 3 objective criteria (“RPM”)
  - Respiratory status and rate
  - Perfusion
  - Mental status
Primary Triage

Start where you stand once the ambulatory “walking” patients have started moving to another designated site

Triage the patient attaching a SMART triage tag to the patient’s upper extremity, if possible, folded to the appropriate color

Once you have first color determined, STOP – tag patient and move on

Limit life support interventions
- Adult – attempt to open the airway and provide some hemorrhage control
- JumpStart for peds – Reposition the airway, deliver 5 rescue breaths and if not breathing on own, tag black and move on
START Triage

Appropriate to be used for the patient over age 8

Note: the layout may change based on source of table but the information pathway is still the same

Form in the handout
Start Triage – Respiratory Assessment

Begin to triage the non-walking patients

As soon as you determine “RED”, you are done triaging
- Tag RED and MOVE ON to next patient

No respiration, reposition
- If not breathing, tag BLACK; MOVE ON

Respirations over 30/minute, tag RED; MOVE ON

Respirations under 30/minute; keep assessing
START Triage – Respiratory Assessment

START TRIAGE
(Simple Triage and Rapid Treatment)

All Walking Wounded

MINOR

YES

NO

Position Airway

RESPIRATIONS

Over 30/min

Under 30/min

IMMEDIATE

IMMEDIATE

DECEASED
START Triage – Perfusion Status

You are at this step only if patient not already tagged **RED**!

If capillary refill over 2 seconds or radial pulse absent, control bleeding, tag **RED**
◦ *MOVE ON!*

If capillary refill under 2 seconds or radial pulse present, continue assessment
START Triage – Perfusion Status

- Radial Pulse Present
- Radial Pulse Absent
- Capillary Refill

- Over 2 Seconds
- Under 2 Seconds

Control Bleeding

IMMEDIATE
START Triage – Mental Status

You are at this step *only* if patient not already tagged (ie: RED or BLACK!)

If patient does not obey simple commands, tag RED
  ◦ Control bleeding if necessary
  ◦ Direct pressure
  ◦ Consider use of available “GREEN” “walking wounded” patients

If patient does obey simple commands, tag YELLOW; MOVE ON
START Triage – Mental Status

- Can’t Follow Simple Commands: IMMEDIATE
- Can Follow Simple Commands: DELAYED
JumpSTART Triage

If patient appears to be a child, use JumpStart

If patient appears to be a young adult, use START

If child under 1 years-old, start with breathing assessment to determine YELLOW or RED
  ◦ Children under 1 years-old are not tagged GREEN

In children, typically respiratory failure precedes cardiac failure
  ◦ This principle accounts for some of the differences in approaches between the triage processes
JumpSTART Triage – Ability to Walk

All walkers initially **GREEN**

Not all children can be naturally assessed starting with ability to walk

Therefore, if too young to walk then need to start assessing the breathing status

- Non-ambulatory children due to age
- Children with developmental delays
- Presence of an acute injury prior to the incident that prevented walking prior to the incident

These patients will be tagged **YELLOW**, **RED**, or **BLACK** – never **GREEN** (in the initial triage sweep)
JumpSTART Triage – Ability to Walk

JumpSTART Pediatric MCI Triage

Able to walk?

YES → MINOR → Secondary Triage *

NO

* Evaluate infants first in secondary triage using the entire JS algorithm
JumpSTART Triage – Not Breathing

If not breathing, reposition airway

If breathing resumes, tag **RED**, move on

If remains apneic and **no** pulse, tag **BLACK** and move on

If remains apneic with pulse, attempt up to 5 trial rescue breaths
  ◦ If breathing resumes, tag **RED** and move on
    ◦ Do not stay with one patient to maintain airway
    ◦ Consider utilizing “walking wounded”, if available, to maintain airway
  ◦ If breathing does not resume after 5 trial breaths, tag **BLACK** and move on
JumpSTART Triage – Not Breathing

1. Breathing?
   - NO: Position upper airway
     - APNEIC
       - NO: DECEASED
         - YES: 5 rescue breaths
           - APNEIC: DECEASED
           - BREATHING: IMMEDIATE
     - YES: IMMEDIATE
   - YES: IMMEDIATE
JumpSTART Triage – Respiratory Rate

If breathing is spontaneous, evaluate rate

◦ If rate <15 or >45, tag RED and move on
◦ If rate 15 – 45, go on to evaluate pulses
JumpSTART Triage – Palpable Pulse

If no palpable pulse, tag RED and move on

If palpable pulse felt, move on to assess mental status
Jump START Triage – Mental Status - AVPU

Use the responses to AVPU as a guideline for mental status

◦ A – patient awake, may or may not be cooperative or confused
◦ V – responding to verbal stimuli
◦ P – responds to painful stimuli
  ◦ Need to categorize the patient’s response to “P” like motor response in the Glasgow Coma Scale (GCS)
    ✓ Movement purposeful to the stimuli?
    ✓ Withdrawing to pain?
    ✓ Abnormal flexion or extension?
◦ U - No response at all, unresponsive
Jump START Triage – Mental Status

If responding inappropriately to painful stimuli, tag **RED** and move on
- Inappropriate response includes posturing (flexion or extension) or absence of any response (unresponsive)

If able to respond to “A”, “V”, or appropriate “P” stimuli, tag **YELLOW** and move on
Secondary Triage (Revised Trauma Score)

Performed in a collection area as a reevaluation tool

Components of Revised Trauma Score determine Secondary Triage score
  ◦ Assess Glasgow Coma Scale (GCS), respiratory rate, and systolic B/P

Secondary triage scores determine treatment and transport priorities – RED, YELLOW, GREEN

If status changes, refold the SMART tag to the appropriate new color

Transportation tag strip should be removed from SMART triage tag and be retained by transportation officer as a tacking tool
### Glasgow Coma Scale / Revised Trauma Score

Convert GCS to 0-4 points

Add to conversion points for respiratory rate and systolic B/P

Total points indicate secondary triage category

The lower the number, the more critical the patient

- 10 or less = **Red**
- 11 = **Yellow**
- 12 = **Green**

<table>
<thead>
<tr>
<th>RESPIRATORY RATE</th>
<th>VALUE</th>
<th>SCORE</th>
<th>POINTS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>10-29</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>&gt;29</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>6-9</td>
<td>2</td>
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<td>1-5</td>
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</table>

<table>
<thead>
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<th>SYSTOLIC BLOOD PRESSURE</th>
<th>VALUE</th>
<th>SCORE</th>
<th>POINTS</th>
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<tbody>
<tr>
<td></td>
<td>&gt;89</td>
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<tr>
<td></td>
<td>76-89</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>50-75</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1-49</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

### GLASGOW COMA SCORE

<table>
<thead>
<tr>
<th>EYE OPENING (PEDS)</th>
<th>SCORE</th>
<th>POINTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spontaneous</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>To Voice</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>To Pain</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>VERBAL RESPONSE (PEDS)</th>
<th>SCORE</th>
<th>POINTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oriented (coos, babbles)</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Confused (irritable cry)</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Inappropriate Words (cries to pain)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Incomprehensible Sounds (responds to pain)</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MOTOR RESPONSE (PEDS)</th>
<th>SCORE</th>
<th>POINTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Obey commands</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Purposeful Movement to Pain (withdraws to touch)</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Withdraw to Pain (withdraws to pain)</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Abnormal flexion</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Abnormal extension</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

**TOTAL GLASGOW COMA SCALE POINTS =**

**TOTAL GCS POINTS = TRAUMA POINTS**

- 13 – 15 = 4
- 9 – 12 = 3
- 6 – 8 = 2
- 4 – 5 = 1
- 3 = 0
Resource Forms in Appendix of Plan

Field Provider Log Form
- Used to organize communication between field and hospital

After Action Report
- Completed following every multiple patient incident
- Fax report to the EMS office at the Resource Hospital within 48 hours of the event
SMALL SCALE: “Business as usual”

Field personnel call the closest appropriate hospital

“Hello. This is the Fire Department. We are on the scene of a Small Scale multiple patient incident. The incident is a ______ (describe the event to the ECRN).

Our total number of patients is ________________.

We have: (Fill in the specific numbers of patients)

____ Category I Trauma ______ Category I Medical
____ Category II Trauma ______ Category II Medical
____ Category III Trauma ______ Category III Medical

How many patients can you take? “

If patients will be transported to other hospitals report those destinations to the ECRN and record below. NO MORE THAN TWO PATIENTS MAY BE SENT TO HOSPITALS WITHOUT PRIOR APPROVAL FROM THE RECEIVING HOSPITAL.

Complete table with specific hospital name(s), #’s and patient acuities:

<table>
<thead>
<tr>
<th>Hospital</th>
<th>Hospital</th>
<th>Hospital</th>
<th>Hospital</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cat I Trauma</td>
<td>Cat II Trauma</td>
<td>Cat III Trauma</td>
<td>Cat I Medical</td>
</tr>
<tr>
<td>Cat II Medical</td>
<td>Cat II Medical</td>
<td>Cat III Medical</td>
<td></td>
</tr>
<tr>
<td>TOTALS</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

NOTE: 1) Complete an After-Action Report (critique form)
2) Fax both this form and the After-Action Report to the EMS Office of the Resource Hospital IMMEDIATELY following the incident.

MEDIUM or LARGE SCALE

Field personnel call their Resource Hospital for Transportation Management

“Hello. This is the Fire Department. We are on the scene of a ______ (Medium or Large) Scale multiple patient incident. The incident is a ______ (describe the event to the ECRN).

Our estimated number of patients is ________________.

We estimate that we have the following types of patients:

RED: ______ YELLOW: ______ GREEN: ______ DECEASED: ______

Our closest hospitals are: “

(IMPORTANT: List in order of proximity to the incident)
1. ____________________________
2. ____________________________
3. ____________________________
4. ____________________________
5. ____________________________

“My Call Back Telephone Number Is: ”

*Use SMART® Command Board to record hospital availability and patient destinations.

NOTE: 1) Complete an After-Action Report (critique form)
2) Fax both this form and the After-Action Report to the EMS Office of the Resource Hospital IMMEDIATELY following the incident.
REGION X
MULTIPLE PATIENT MANAGEMENT PLAN

AFTER-ACTION REPORT

Date of Incident: ____________________ Time of Incident: ____________________ Primary Fire/Rescue Agency: ____________________

Description of Incident: ________________________________________________________________

Check One:

SMALL □: Total # patients: ______ (Specific # Trauma: Cat I __ Cat II __ Cat III __ Medical: Cat I __ Cat II __ Cat III __)

MEDIUM □ / LARGE □: Total # patients: ______ (Specific #: Red _____ Yellow _____ Green _____ Deceased ______)

Please answer the following questions. Use the reverse side for additional comments (take note when faxing form).

Which hospital was first contacted by field personnel?

Mode of communication between field and hospital: Cell phone □ Telemetry □ MERCI □ Other:__________

Any difficulties with initial communication? No □ Yes:________________________

Was it difficult to determine the Scale of the incident? No □ Yes:________________

Any difficulties with triage? No □ Yes:________________________

Receiving Hospitals / # pts to each hospital:________________________

Any difficulties with patient disbursement? No □ Yes:________________________

Any difficulties with ambulance to hospital communication (Small Scale only): No □ Yes:________________________

Was the two-sided Multiple Patient Management Plan REFERENCE CARD used? Yes □ No □

If yes, was it helpful? Yes □ No □ Comments:________________________

Was a Region X Multiple Patient Management Plan LOG FORM used? Yes □ No □

If yes, was it helpful? Yes □ No □ Comments:________________________

Overall, how effective was Region X Multiple Patient Management Plan in successfully disbursing patients from the scene to area-wide hospitals?

- Very Effective □
- Effective □
- Ineffective □
- Very Ineffective □

The success of the plan depends on your detailed comments. Please provide us with any additional information that may be helpful:________________________

Hospital Personnel – Submit this form and Emergency Department Log form to your hospital EMS Coordinator.
Field Personnel – Fax this form and Field Provider Log Form to the Resource Hospital EMS Office. 03/12
Practice START Triaging

Review the following cases as a group

Use your resource tools (START and JumpSTART Triage cards; copies in the handout)

Discuss as a group why you triaged to the color you did

Note: This is an objective process that should eliminate emotions
Let’s see how it works!
Practice START Triaging

Triage the following patients

The nature of the call is not important; you triage all calls the same way

◦ Do not be swayed by how much man-power is available
◦ START and JumpSTART triage is used for all medium and large scale incidents

Assumption – all patients capable of walking and self-extricating (i.e.: GREEN) have removed themselves to an alternate location for triage.

THERE WILL BE NO GREENS IN THE FOLLOWING GROUPS!!!
Practice START Triaging

#1 – 52 year-old M dizzy and unable to walk
  ◦ RR – 20 / minute
  ◦ Cap refill < 2 seconds; radial pulse present
  ◦ Obeys simple commands

#2 – 25 year-old F 6 months pregnant
  ◦ RR – 12 / minute
  ◦ Capillary refill 4 seconds
  ◦ Eyelids flutter to verbal stimuli
Practice START Triaging

#3 – 46 year-old M
- RR – 32 / minute
- Capillary refill >2 seconds; radial pulses weak
- Does not follow simple commands

#4 – 16 year-old M
- RR – 38 / minute
- Capillary refill <2 seconds
- Follows simple commands
Practice START Triaging

#5 – 21 year-old F – unable to walk due to open fracture lower extremity
  ◦ RR – 28 / minute
  ◦ Capillary refill <2 seconds
  ◦ Crying for help, unable to recall events

#6 – 10 year-old M
  ◦ RR – 14 / minute
  ◦ Capillary refill 2 seconds, radial pulse present
  ◦ Follows simple commands
Practice START/JumpSTART Triaging

#7 – 3 year-old F
- RR – 18 / minute
- Pulse present, irregular
- Responds to pain by grabbing at your hands (localizing)

#8 – 2 year-old M
- RR – 20 / minute
- Palpable radial pulses
- Has hoarse cry
Practice START/JumpSTART Triaging

#9 – 1 year-old F
- RR – 40 / minute
- Palpable pulse
- Responds to verbal stimuli

#10 – 5 year-old M
- RR – 52 / minute
- Weak palpable pulse
- Withdraws to stimuli
Practice START Triage Answers

#1 – 52 year-old M dizzy and unable to walk
- RR – 20 / minute
- Cap refill < 2 seconds; radial pulse present
- Obeys simple commands
- **YELLOW** – tagged after mental assessment

#2 – 25 year-old F 6 months pregnant
- RR – 12 / minute
- Capillary refill 4 seconds (*STOP triage here – this is now a RED!*)
- Eyelids flutter to verbal stimuli
- **RED** – tagged after capillary refill; shouldn’t get to mental assessment
Practice START Triage Answers

#3 – 46 year-old M
- RR – 32 / minute (STOP triage here – this is now a RED!)
- Capillary refill >2 seconds; radial pulses weak
- Does not follow simple commands
- **RED** – Stopped and tagged with RR > 30/minute

#4 – 16 year-old M
- RR – 38 / minute (STOP triage here – this is now a RED!)
- Capillary refill <2 seconds
- Follows simple commands
- **RED** – Stopped and tagged with RR > 30/minute
Practice START Triage Answers

#5 – 21 year-old F – unable to walk due to open fracture lower extremity
  ◦ RR – 28 / minute
  ◦ Capillary refill <2 seconds
  ◦ Crying for help, unable to recall events
  ◦ **YELLOW – tagged after a mental assessment is completed**

#6 – 10 year-old M
  ◦ RR – 14 / minute
  ◦ Capillary refill 2 seconds, radial pulse present
  ◦ Follows simple commands
  ◦ **YELLOW – assess as an adult; tagged after mental assessment**
Practice START/JumpSTART Triage Answers

#7 – 3 year-old F
- RR – 18 / minute
- Pulse present, irregular
- Responds to pain by grabbing at your hands (localizing)
- YELLOW – Tagged after mental assessment done using JumpSTART

#8 – 2 year-old M
- RR – 20 / minute
- Palpable radial pulses
- Has hoarse cry
- YELLOW – Tagged after mental assessment done using JumpSTART
Practice START/JumpSTART Triage Answers

#9 – 1 year-old F
- RR – 40 / minute
- Palpable pulse
- Responds to verbal stimuli
- **YELLOW** – tagged after mental assessment done using JumpSTART

#10 – 5 year-old M
- RR – 52 / minute (STOP triage here – now is a **RED**!)
- Weak palpable pulse
- Withdraws to stimuli
- **RED** – tagged after RR found to be >45 / minute using JumpSTART
Practice Secondary Triage

Refer to the table in your handout

Complete the calculations

Assign a priority color

◦ Secondary score 12 – GREEN
◦ Secondary score 11 – YELLOW
◦ Secondary score 10 or less – RED

Discuss your findings with the group
Practice Secondary Triage

Pt #1 – 45 year-old
- RR – 30 per minute
- Systolic B/P – 102
- Responds to voice
- Moans and groans
- Withdraws to pain

Pt #2 – 28 year-old
- RR – 42 per minute
- Systolic B/P – 84
- Eyelids flutter to pain
- Making incoprehensible sounds
- Bends arms to pain
Practice Secondary Triage

Pt #3 – 72 year-old

RR – 16 per minute
Systolic B/P – 150
Opens eyes to voice
Is confused
Obey commands

Pt #4 – 10 year-old

RR – 20 per minute
Systolic B/P 92
Responds to voice
Using inappropriate words
Grabbing at your hands and equipment
Practice Secondary Triage

Pt #5 – 5 year-old

RR – 34 per minute
Systolic BP 84
Eyes open looking around
Is confused
Grabs at your hands and the equipment

Pt #6 – 2 year-old

RR – 12 per minute
Systolic B/P 74
No eye movement
Moaning and groaning occasionally
Bends arms when stimulated
Practice Secondary Triage Answers

Pt #1 – 45 year-old
- RR 30 – 3 points
- Systolic B/P 102 – 4 points
- GCS eye – 3 points
- GCS verbal – 2 points
- GCS motor – 4 points
- Total GCS 9 – converted points 3
- Secondary triage – 10 points - RED

Pt #2 – 28 year-old
- RR 42 – 3 points
- Systolic B/P 84 – 3 points
- GCS eye – 2 points
- GCS verbal – 2 points
- GCS motor – 3 points
- Total GCS 7 – converted points 2
- Secondary triage – 8 points - RED
Practice Secondary Triage Answers

Pt #3 – 72 year-old

- RR 16 – 4 points
- Systolic B/P 150 – 4 points
- GCS eye – 3 points
- GCS verbal – 4 points
- GCS motor – 6 points
- Total GCS 13 – converted points 4
- Secondary triage – 12 points - GREEN

Pt #4 – 10 year-old

- RR 20 – 4 points
- Systolic B/P 92 – 4 points
- GCS eye – 3 points
- GCS verbal – 3 points
- GCS motor – 5 points
- Total GCS 11 – converted points 3
- Secondary triage – 11 points - YELLOW
# Practice Secondary Triage Answers

## Pt #5 – 5 year-old

- RR 34 – **3 points**
- Systolic B/P 84 – **3 points**
- GCS eye – 4 points
- GCS verbal – 4 points
- GCS motor – 5 points
- Total GCS 13 – **converted points 4**
- Secondary triage – **10 points** - RED

## Pt #6 – 2 year-old

- RR 12 – **4 points**
- Systolic B/P 74 – **2 points**
- GCS eye – 1 points
- GCS verbal – 2 points
- GCS motor – 3 points
- Total GCS 6 – **converted points 2**
- Secondary triage – **8 points** - RED
Table Top Drills

Work in groups

Determine the best response based on your department location, resources, and man-power

Discuss as a group the thoughts behind the decision making

Use the Region X Multiple Patient Management Plan as a tool
Table Top Drills

This is your town, so you pick the location of the incident

Decide on the nature and size of the incident

◦ Can change the scenarios and determine number of patients involved
◦ Determine your in-house resources
◦ Determine need and process to activate and attain mutual aid
◦ Start the table top process based on type of response you would normally have done (i.e.: 1 ambulance 2, 3 personnel or whatever)
Table Top Drill #1

A minivan with 8 people collides in an intersection in your town with a small bus with 14 children

The minivan has 2 adults, 5 children between 3 and 14, and 1 child under 1

The small bus has 1 adult and 13 primary grade children between 5 and 10 years of age

Choose the intersection, determine the degree of injuries, run the drill from dispatch
Table Top Drill #1 – Large Scale Incident

Contact Resource Hospital

Give information with RED, YELLOW, GREEN descriptions

Resource Hospital coordinates receiving hospitals
  ◦ Provide them the information on who would be your closest, most appropriate hospitals

Triage tags used

START triage performed

Transportation Officer to communicate with Resource Hospital with numbers, categories and ETA’s

Use tags as patient care reports
Table Top Drill #2

2 vehicles collide in an intersection
There are 8 teenagers between the 2 cars

Choose the intersection, determine the degree of injuries, run the drill starting from dispatch
Table Top Drill #2- Possibly Small Scale Incident

Contact closest, appropriate hospital
Give information with briefly described patient conditions
Field Command coordinates transportation to hospitals
Triage tags *not* used
Routine triage/assessment performed
Each transporting ambulance to communicate with Receiving Hospital with abbreviated report
Complete written patient care reports as usual
Table Top Drill #3

There is a partial roof collapse at a local store
You pick the time of the day and the level of occupancy
Discuss how you would determine number of potential victims
Based on your answers, determine level of management plan to activate and then do a table top drill walking through the processes
Table Top Drill #4

You are at the scene of a single car versus house

There are 4 passengers in the car
  ◦ 2 adults, an adolescent, and infant in a car seat

You will need to determine if there are injured occupants in the house

Based on your answers, determine level of management plan to activate

Walk through a “business as usual” and “small scale incident”
Disaster Management Plans

For greatest success in managing these types of incidents, it takes
- Pre-planning
- Training
- Multi-agency coordination

The more these concepts are used in smaller, every day, more routine settings, the easier they will be to apply to large incidents

And by then, they will be ingrained habits!
Bibliography


Region X Multiple Patient Management Plan Amended March 1, 2013.

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http://emsstaff.buncombecounty.org/inhousetraining/start/start