



NORTHWEST
COMMUNITY
EMERGENCY
MEDICAL
SERVICES
SYSTEM

EST 1972



Continuing
Education
September 2022

EMS Operations

Emergency Preparedness & Response | MPI
Management | START & JumpSTART Triage

Kourtney Cheesey BSN, RN, Paramedic

Global Objectives: Upon completion of the class, participants will do the following w/o critical error:

- Correctly differentiate EMS responses to small, medium, and large scale MPIs using the SOPs.
- Use the SALT priorities; START and JumpSTART triage, and SMART tag system to accurately perform primary and secondary triage on sample patients.
- Explain the provisions of the CHEMPACK plan and how assets are requested & transported to the scene.
- Characterize respect and professional behaviors when responding to real or simulated MPI events.

Latest news

Maker of nicotine gummies warned by the FDA that their product is a looming 'public health crisis' among children

The Food and Drug Administration said the fruit-flavored gummies from Florida manufacturer VPR Brands could cause nicotine poisoning or even death if eaten by small children.

Thousands of 'rainbow fentanyl' pills seized as authorities warn of possible new 'trend' targeting kids



LEAVE THE KIDS ALONE!

Authorities warn potent 'Rainbow Fentanyl' is spreading on the West Coast after bag seized in Portland



JumpSTART training is required:

- Every other year for EMS
- Annually for ED Staff (to maintain EDAP)
- Completed rosters must be submitted to Lurie Children's

Pediatric Disaster Triage: Utilizing the JumpSTART® Method

Training Completion Form

Location: _____

Address: _____

City: _____ State: _____ Zip Code: _____

Course Coordinator: _____ Email: _____

Date of Training: _____

Type of Training (check one): ☐ In-person ☐ Virtual

Number of participants who successfully completed training: _____

Feedback received during program: _____


PLEASE SCAN AND EMAIL THIS FORM AND STUDENT ROSTER TO roster@luriechildrens.org OR FAX TO THE ATTENTION OF RAMONA RENDON 708.312.6535

COMMITTED TO EXCELLENCE IN
EMERGENCY PREPAREDNESS

- August 30th – NCH Hospital Response Team Training (CBRNE/ HazMat/ Chemical Decon for ED staff)
- September 14th - Region 8/9 Joint Exercise for MCI / Radiation Emergency
- October 17th - Helipad Emergency Exercise with Arlington Heights FD and PD, Superior helicopter, NCH staff, and NWCD

**COMMITTED TO EXCELLENCE IN
EMERGENCY PREPAREDNESS**


CISA Active Shooter Preparedness Webinar - Region 5 - Illinois



1 x Designation
Credit: 1 hour


Wednesday, August 24, 2022 from 3:00 PM to 5:00 PM (ET/PT)
Webinar Google Calendar - CISA - Illinois

Region VIII Trauma Coordinators proudly
present the 17th Annual Trauma Symposium
"Making the Case for Trauma"



Friday, September 16, 2022
7:00am - 3:30pm | Cost \$50
Embassy Suites - 1823 Abriter Ct, Naperville, IL 60563
Eligible for 5.5 EMS / ANCC CE hours

Please visit our website www.region8trauma.org to register
and for speaker topics and bios.



You may need the QR code when you register.
Please register in advance as the number of seats is limited and will not be accepted.
Registration is now underway.



True or False
POLST forms must include witness signatures

False

**What is the initial concentration,
dose, and route of Epinephrine for an
adult pt in anaphylactic shock?**

1mg/ 1 mL

0.5 mg

IM

**How shall oxygen be administered while
treating anaphylaxis given the pt is awake
w/ spontaneous effort?**

Consider CPAP 5-7 cm PEEP

What is the minimum MAP a pt **MUST
present with in order to use CPAP?**

60

**ApOx is indicated in what two patient
situations?**

**EMS witnessed cardiac arrest
and/ or**

a shockable rhythm

After an ADV airway is placed, what piece of equipment gets attached first to the ET tube?

In-line EtCO₂ sensor

Followed by?

HEPA filter (if applicable)

ITD

Zoll-Accu vent (if applicable)

BVM (w/ HEPA filter if applicable)

Which of the following procedures from the old cardiac arrest protocol have been removed? Select All That Apply

Dual sequential defibrillation ✓

Delayed defibrillation ✓

Targeted Temperature Management ✓

Glucose check during Hs & Ts ✓

A critical pt in monomorphic VT shall receive which type of electrical therapy?

Synchronized Cardioversion

A critical pt in polymorphic VT shall receive which type of electrical therapy?

Defibrillation

What is the adult dose of naloxone?

1 mg

How often can repeat doses be administered?

q. 2 mins

What is the max total dose per EMS?

4 mg
(additional doses, contact OLMC)

What is the max dose of ketamine for sedation?

300 mg

If no IV, what is the recommended approach to administration?

If IN:

Up to 50 mg (1 mL) per nostril &/or

If IM:

Up to 150 mg (3 mL) (may use both anterolateral thighs through clothing prn)

What are some oral carbohydrate options to treat a hypoglycemic pt with GCS 14-15 & the ability to safely swallow?

- Glucose tablets
- Glucose gel (15 g/tube)
- Sweetened fruit juice
- Soda (regular)
- Honey
- Granulated sugar

During neonatal resuscitation how should O₂ be delivered if the RR < 40 or breathing is ineffective (HR ≥100)?

PPV/ neonatal BVM @ 40-60 BPM Room Air

If RR > 40?

Neonatal NRM 1" from baby's face blow by O₂ @ 10 L

MPIs occur from many causes & come in all sizes



UVALDE HIGH SCHOOL

Planning & practice needed for effective mitigation, preparedness, response, and recovery

Background

	Small Scale (Single Jurisdictional) Incident	Medium Scale Incident	Large Scale (Multi-Jurisdictional) Incident	EVACUATION
Definition	2-4 Ambulances requested based on acuity and you have extended your 2-2-2 capabilities.	7-10 Ambulances ¹ based on acuity and you have extended your 2-2-2 capabilities.	More than 10 ambulances	LIFE-THREATENING EMERGENCY EVACUATION of a HEALTHCARE FACILITY Includes: Inpatient, Outpatient, Clinic
Initial Communication	Contact System EMS Base Station to determine first patient availability during 2-2-2.	Contact Resource Hospital	Contact Resource Hospital	Contact Resource Hospital
Initial Information	• Event description • Estimate # of patients • Actual patient acuity (Use RED, YELLOW, GREEN, BLACK) • Closest Hospital	• Event description • Estimate # of patients • Estimate patient acuity (Use RED, YELLOW, GREEN, BLACK) • Closest Hospital	• Event description • Estimate # of patients • Estimate patient acuity (Use RED, YELLOW, GREEN, BLACK) • Closest Hospital	• Event description (Include facility name) • Estimate #, type and acuity of pts • Closest Hospital • Potential alternative receiving facility
Post-Incident Command	Single	Medical Branch Director	Unified Command	Unified Command (IC will coordinate with Hospital Command Captain)
Triage Method	Use standard triage procedures to identify correct patient Category and determine hospital destination.	START/START/Triage	START/START/Triage	Triage may be directed by affected Facility and Resource Hospital.
Triage Tag	Complete patient care reports as usual.	START TAGS and complete PCR's unless emergency circumstances exist.	START TAGS	Triage tags MUST be used if secondary injuries occur. (No written patient care reports)
Patient Disposition	Transportation officer (or designee) shall coordinate transportation management and destination of all patients. *Patients shall be delivered to appropriate facilities according to the Region 9 SOP or 1000s. Event triaging, stabilization, and care then receiving hospital with initial report.	Respective Hospital in conjunction with Transportation officer coordinates transportation management and destination of all patients. In a multiple EMS System Incident RECV may be assigned with destination and providing additional resources.	Respective Hospital in conjunction with Transportation officer coordinates transportation management and destination of all patients. In a multiple EMS System Incident RECV may be assigned with destination and providing additional resources.	Respective Hospital works in conjunction with local command and administration of affected facility to determine where patients will be transported. JBCC may be requested for assistance with communication and additional resources. Consider activation of MARS, PPS and CERG.
Additional to Hospital Communication		TRANSPORTING AMBULANCE WILL PROVIDE ABREVIATED RADIO REPORT TO RECEIVING HOSPITAL.	NO CONTACT BETWEEN TRANSPORTING AMBULANCE AND RECEIVING HOSPITAL.	NO CONTACT BETWEEN TRANSPORTING AMBULANCE, PATIENT TRANSPORTATION TABLE AND RECEIVING FACILITIES.

Background



MPI/MCI response in the Northwest Community EMS System

See SOP – p. 56

MULTIPLE PATIENT INCIDENTS (NR)		
MPIs in Region IX are governed by MARS Divisions and County or System Multiple Patient Management (MPM) Plans. Roles may vary. Allow for scalable response. It is recommended that at least the following are designated for EMS purposes: Triage, Treatment, & Transportation groups.		
Element	Small scale incident	Medium to large scale incident
Definition/trigger	Resources avail. w/in 15 min make normal care achievable for most seriously injured. All time-sensitive patients can be transported w/in a 10 min scene time. "Business as usual" within scope of normal operation.	Normal EMS response and care unachievable, and/or Resources avail. within 15 min are INSUFFICIENT to provide normal levels of care/transport per SOP and/or Stabilization capabilities of hospitals reachable within ground transport time of 30 min are INSUFFICIENT to handle all pts. May need to activate disaster plans.
Scale incident based on resources	Do the best for each individual	Greatest good for greatest number
Triage required	YES – all persons on scene, using START/UMF/Start	
Triage tags	Optional	Mandatory
PCR/RECs	Mandatory	Optional; may use triage tag only
Pt distribution, usual transport patterns	Apply	Do not apply.
Trauma Center criteria	Apply	Do not apply
OLMC when transporting	Mandatory	Not required; R/c per SOP
#in pt compartment + EMS responder	1 ALS + 1 BLS or 2 BLS if no HIPAA violation	1 stretcher pt, 3 seated or 2 stretcher pts - all must be safely secured
Refusal process	Applies	Attempt - may not be possible

Define/ trigger

Scale incident based on resources

Small Scale

- Resources avail w/in 15 mins are sufficient
- All time-sensitive pts can be transported w/in a 10 min scene time
- "Business as usual" w/in the scope of normal operation
- Do the best for each individual

Medium to large scale

- Resources avail w/in 15 mins are *insufficient* to provide normal levels of care/ transport per SOP
- Stabilization capabilities of hospitals reachable w/in ground transport time of 30 mins insufficient
- Greatest good for greatest number

Small Scale

Medium to large scale

Are triage tags required?

Optional

Mandatory

Are PCR's required?

Mandatory

Optional;
may use triage tag only

Pt distribution; usual transport patterns ?

Apply

Do not apply;
Transport times > 30 mins OK

Small Scale

Medium to large scale

Does Trauma Center criteria apply?

Yes, it applies

Does NOT apply

Does EMS contact OLMC when transporting?

Required

Not required; Rx per SOP

in pt compartment + EMS responder?

1 ALS + 1 BLS or 2 BLS
If no HIPAA violation

1 stretcher pt; 3 seated or
2 stretcher pts- all must be
safely secured

Who determines incident level?

- Depends on agency policy
- Often is person who assumes command
- Discuss agency policy w/ command staff

Priorities of a MPI include:

Scene size up/ ensure safety- situational awareness

Command and control – build resources

On-scene operations established
Initiate National Incident Management System (NIMS)

Medical Group (EMS considerations):
Triage | Treatment | Transport

See SOP – p. 56

- Scene size up/ensure safety | Determine if help is needed | Notify dispatch: Call for an officer, describe incident, nature, location, presence of debris, hazards (need for debris), traffic, entrapments, estimated # pts
- Ask dispatch to alert RH if Med-Lg. scale incident | Help with triage/treatment when initial communication is complete.
- First arriving EMS personnel (leading officer) becomes initial IC | Establish scene command, Determine incident scale, build resources, make assignments, deploy ID vests if mutual aid involved to ID key personnel
- Medical group: Inform IC re: needed resources (additional amb., helicopter, personnel, equipment)

SORT – ASSESS (TRiage)

- Primary triage: Sort the walkers, the waltzers (can follow commands/cannot move themselves), and the still. Assess the 'still' first. Assign triage categories (R-Y-G-deceased) | Recognize utility, care and Rx dictated by physiologic state
- Update IC re: # of pts & triage categories | Assume pts. are moved to Tx area | When done report to MCO for reassignment

LIFE- SAVING INTERVENTIONS | TREATMENT

- During Primary Triage: Provide life-saving interventions that take < 1 min and do not require anyone to stay with pt. Control bleeding w/ hemostatic gauze/tourniquets | manually open airway | give 2 breaths to child/infant found apneic | needle decompress tension pneumothorax | Give chemical burn antidote per subdirector
- Establish/Manage (R-Y-G) Treatment (Tx) areas, ensure ongoing secondary triage (all revised trauma scoring) | provide Rx as able per SOP

TRANSPORTATION

- Prioritize pts. for transport | Coordinate departures w/ transportation officer
- Establish loading area accessible to Tx area that allows safe/coordinated access & egress
- Request ambulances from staging. Assign pts. to ambulances based on triage priority
- Immediately send up to 2 of the most critical pts. to each hospital that can be reached in 30 min (help clear scene).
- COMMUNICATION:** Small-scale: Contact hospital per local policy to distribute remaining patients.
- Med-large scale: Contact Resource Hospital (RH) ASAP- Relay nature of incident, # pts., categories, age groups, functional needs, need for decontamination | Report hospitals already getting their first 2 pts.
- RH duties: Assess receiving hospital capabilities, triage locations, & relay info to scene. Exchange call back numbers.
- Assign hospital destinations to remaining pts based on traffic patterns, hospital resources available, and acuity.
- Attempt to evenly distribute pts – do not overburden one facility. Preferable (not mandatory) to keep families together.
- Notify EMS crew re: destination and location of hospital triage intake/decon, provide maps pm
- Log/can triage tag #, destination, agency/vehicle & departure time
- Update IC and RH as info becomes available. Notify RH when scene clear or if more hospitals are needed.

*A medical disaster occurs when the destructive effects of natural or man-made forces overwhelm the ability of a given area or community to meet the demand for healthcare (ACEP, 2006). EMS MD or IDPH may suspend normal EMS operations and direct that care be conducted by SOP and/or using personnel/resources as available.

Disaster Distress Helpline - 1-800-985-5959

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NATIONAL INCIDENT MANAGEMENT SYSTEM

Emergency Management Institute

FEMA

This Certificate of Achievement is to acknowledge that

has reaffirmed a dedication to serve in areas of public safety, professional development and organizational

Recognize local use of terms not always consistent with NIMS (e.g., EMS, medical, unit, section, branch, group, division, unit, team, director, leader, mgr, supv).

NOT intended to be a NIMS course, but to focus on EMT and PM duties in a situation involving multiple patients

State of Illinois
National Incident Management System (NIMS)

Class discussion today

Intended to focus only on the tasks of EMS/Medical - triage, treatment, OLMC communication, transport & documentation

NOT intended to cover how to fully manage an incident (*duty of incident commander*), nor a comprehensive review of all aspects of NIMS



The SMART System

Triage equipment triage packs, triage tags, command board, & associated gear/ vests



SMART Commander

Contains:

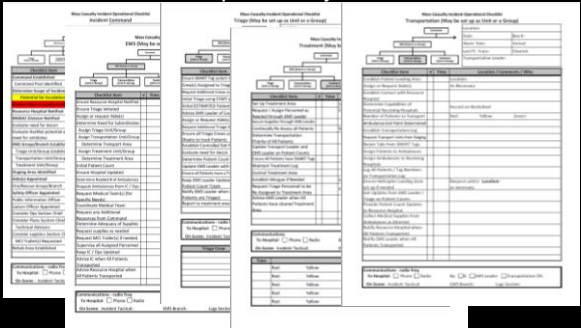
- 2 laminated command sheets
- Incident Sketch sheet
- Control Board
- 2 Sharpie markers (or grease pencils)

Can be erased with alcohol; less likely to be accidentally erased than dry erase markers!



SMART Commander

Also includes Command Checklists for each role / area of responsibility



SMART Triage Pack

Contains:

- 20 SMART triage tags
- 20 Contamination tags
- 10 Dead tags
- 5 mini light sticks
- 2 pencils
- Reference cards
- Adult triage/casualty count cards
- JumpSTART algorithm



SMART Triage Pack holder

Velcro strap on back attaches to a belt
Designed to open while wearing and allow access to contents without spilling

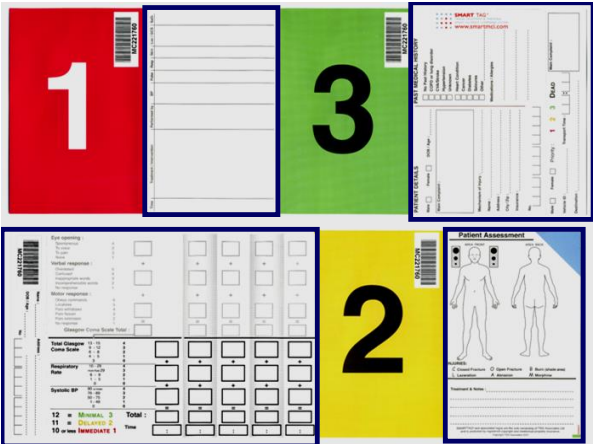


The SMART Triage Tag

Made of water and rip-proof material; tag is water, chemical, and body fluid-proof

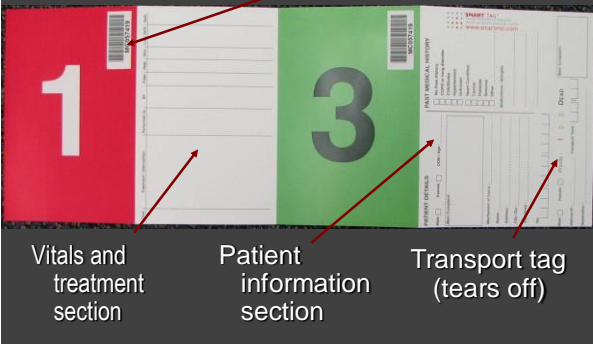
Can withstand a decontamination shower

Dynamic design allows for upgrading and downgrading acuity rating

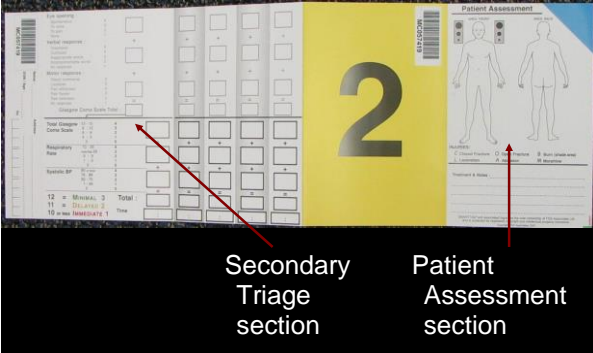


Total card size when unfolded: 15.4 X 6"

Individually numbered & bar coded



The SMART Tag cont.



SMART Tag

Instead of tearing a strip, tag has high visibility color panels

Fold tag so appropriate triage color is visible in plastic envelope

Separate black "DEAD" tag



SMART Tag

Place tag in plastic wallet - allows additional storage space for further documentation

Secure to patient's wrist with latex-free band - don't loop through clothing that may be removed

Will not restrict tissue circulation




SMART Contamination Tag

Separate tag to be put in outside pocket of plastic envelope if patient is contaminated

Ensure **CONTAMINATED** side is visible



SMART Contamination Tag



Decontamination panel completed after decon

Ensure that side shows through envelope

CHEMICAL AGENT

AGENT(S) _____

Characteristics

☐ Non Persistent Nerve ☐ Choking

☐ Persistent Nerve ☐ Other

☐ Blistering

Signs / Symptoms _____

Treatment _____

RADIOLOGICAL AGENT

Type : ALPHA BETA GAMMA

Dose Estimation Method & Estimated Dose

☐ Clinical ☐ Estimate

Contamination State: ☐ Internal ☐ External

Signs / Symptoms _____

Treatment _____

BIOLOGICAL AGENT

AGENT(S) _____

Characteristics

☐ Bacterium ☐ Virus

☐ Fungus ☐ Protozoan

☐ Toxin

Signs / Symptoms _____


Treatment _____

Filled out as additional info becomes available re: chemical, radiological or biological agents involved


Casualty counts

Tracking system on back of adult triage reference card allows triage officer to cross off next number as each new pt. is prioritized

Each card can account for 20 reds, 20 yellows, 20 greens, & 10 dead



You're first in...




Scene safety – situational awareness

If active assailant, crime scene: EMS should not enter until cleared by law enforcement unless embedded w/ TEMS

Stage out of killing zone if active assailant or possible explosive device

Stage upwind of any hazardous materials leak


Is PD setting up a perimeter?



Privacy considerations

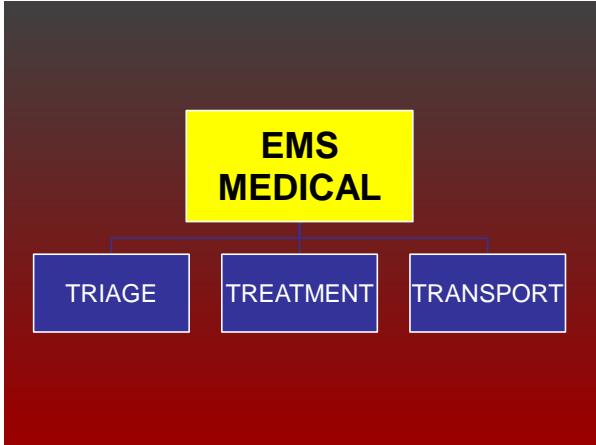
How can pts be screened from onlookers/media?
How should requests for information be handled?
PIO: During & after incident

- Who serves that role?
- How are they requested to scene?
- Who briefs them?
- Who will provide on camera media briefings?
Short-term event; long-term event?



Wear vests

Sooner rather than later
Help facilitate effective communication




Triage

Assigned by & reports to EMS/Medical
Overall goals

1. Locate all victims
2. Triage (& tag if Med-Lg/MCI)
3. Notify EMS/med of #'s
4. Move pts (reds 1st) to treatment

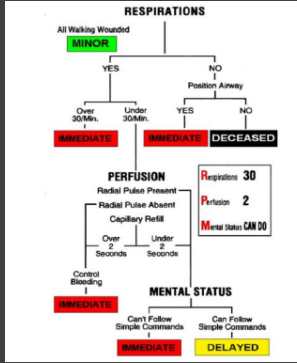
Approach to triage



START (Simple Triage And Rapid Treatment): basic system used for adult primary or initial triage
JumpSTART: Used for pediatric initial triage

SMART system has a *primary triage tag* & adds a *secondary triage process*

Start Triage



START TRIAGE: For Primary triage only

RED - Priority 1 - IMMEDIATE - Emergent

- Resp. >30 | Resp. resume after head tilt
- Pulse: radial absent/carotid present
- Delayed capillary refill (> 2 sec)
- Severe bleeding/control measures
- AMS; cannot follow commands
- Emotionally disruptive pt. | First responder

YELLOW - Priority 2 - DELAYED - Urgent

- Non-ambulatory; all others:
- RR <30, + radial pulse; can follow commands

GREEN - Priority 3 - MINOR - Non-urgent

- Can walk; Direct to a specific location

Expectant/DECEASED - Priority 0

- Dead or obviously dying; injuries incompatible w/ survival - Apneic after opening airway

SECONDARY Triage: Use the Revised Trauma Score (RTS) to determine triage priority: GCS, RR, & SBP | See SOP p. 44 | Scores range from 0-12

- 12: Priority 3 (green)
- 11: Priority 2 (yellow)
- 10 or less: Priority 1 (red)

The SALT method

Four-step process for first responders to manage mass casualty incidents; stands for:

- Sort
- Assess
- Lifesaving interventions
- Treatment and/or transport

START: Primary Triage

Sort the **walkers** from the **wavers** (those who can follow commands but cannot move themselves, and the still)


Assess the “still” first

Step 1: Sort: Global Sorting

Walk / Ambler 3rd

Waver / Purposeful Movement / Ambler 2nd

Still / Obvious Life Threat / Ambler 1st





START: Primary Triage

Step 1

Direct anyone who can, to **walk** away from scene- BUT

Direct them to a **specific** location

Assign someone to coordinate walkers

Initially tag “**MINOR**”

(Walkers have moved / wavers have been identified)

Begin where you stand and assess the still

START Step 2 : Assess respirations


No breathing: reposition airway

Still no breathing: tag “**DECEASED**”

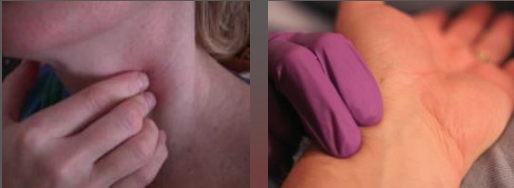
Breathing resumes after airway opened: tag “**IMMEDIATE**”

If RR >30: tag “**IMMEDIATE**”

If RR < 30: check pulse



START Step 3: Assess perfusion



Compare carotid/radial pulses

✓capillary refill (should be < 2 sec)

If carotid present/radial absent (cap refill > 2 s): tag “**IMMEDIATE**”

Control severe bleeding w/ hemostatic gauze/ tourniquets


Where does EMS get equipment to control bleeding or Rx life threats during primary triage?

LIFE-SAVING INTERVENTIONS | TREATMENT

- During Primary Triage: Provide life-saving interventions that take < 1 min and do not require anyone to stay with pt: Control bleeding w/ hemostatic gauze/tourniquets | manually open airway | give 2 breaths to child/infant found apneic | needle decompress tension pneumothorax | give chemical toxin antidote per autoinjector
- Establish/Manage (R-Y-G) Treatment (Tx) areas, ensure ongoing secondary triage (w/ revised trauma scoring); provide Rx as able per SOP

Mass Trauma / Violence Bags

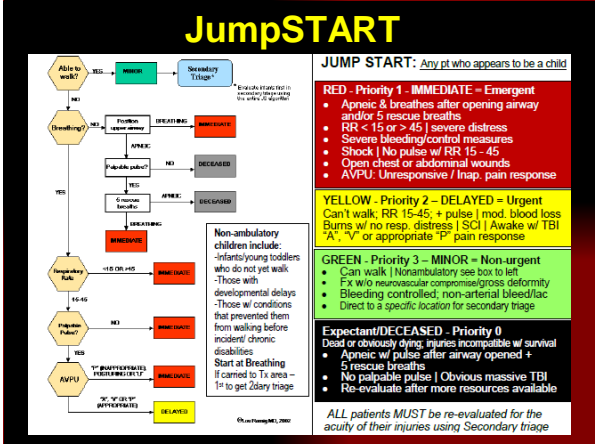
Maspedition Bag	1
Trauma Shears	1
Sharp Markers	2
Rescue Blankets	4
28 f NPA	4
Hyflex Chest Seal	4
Celox Bandage	2
CAT II Tourniquet	4
Celox Bandage	3
Decompression Needles	4
Lube	4



Note: BLS bags are the same w/o Decompression needles

START step 4: Assess mental status

Unresponsive: tag **"IMMEDIATE"**
AMS; cannot follow simple commands: tag **"IMMEDIATE"**
CAN answer questions & follow simple commands: tag **"DELAYED"**
Emotionally disruptive pt. | First responder: tag **"IMMEDIATE"**

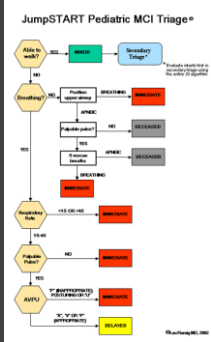


The JumpSTART System

Any pt who appears to be a child
Like START, begin by having all pts who can walk exit the immediate area: tag **"MINOR"** and move along to secondary triage
Non-ambulatory children include:
-Infants/young toddlers who do not yet walk
-Those with developmental delays
-Those w/ conditions that prevented them from walking before incident/chronic disabilities
Start at Breathing
If carried to Tx. area - 1st to get 2dary triage
If carried to Tx area - 1st to get secondary triage

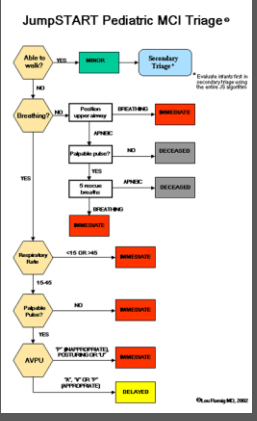
JumpSTART cont.

Cannot walk – assess breathing
No breathing: position upper airway
Breathing resumes: tag **"IMMEDIATE"**



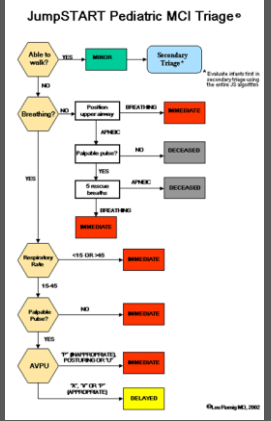
JumpSTART cont.

Still no breathing: check pulse
No pulse: tag **"DECEASED"**
Pulse present: give 5 breaths
Breathing resumes: tag **"IMMEDIATE"**
No breathing: tag **"DECEASED"**



JumpSTART cont.

Breathing present:
Assess RR: < 15 or > 45 Severe distress: tag **"IMMEDIATE"**
Check palpable pulse (not cap refill)
No palpable pulse w/ RR 15 - 45: tag **"IMMEDIATE"**



JumpSTART cont.

Assess **mental status** using "AVPU" scale

If inappropriately posturing (abnormal non-purposeful flexion or extension) to pain or unresponsive: tag **"IMMEDIATE"**

If appropriate posturing (A, V, or P): tag **"DELAYED"**

JumpSTART Pediatric MCI Triage®



Treatment

Assigned by & reports to EMS/Medical

Overall goals

- Establish & manage tx areas, incl. supplies
- Re-triage all pts using Secondary triage
- Determine priority for transport
- Provide treatment as able
- Maintain treatment log
- Establish morgue if needed



Most important function of Treatment Area
Transport order determined by **secondary triage score**; must be a continual process

SMART tags have 5 columns to track trends

Secondary Triage

Secondary Triage

Especially important to reassess **"MINORS"** may have significant injuries

Uses Revised Trauma Score

Revised Trauma Score (RTS)

Glasgow Coma Scale
conversion points
Respiratory rate
Systolic BP (Need cuffs!)

Priority for transport:

RTS 12 = Green (3)

RTS 11 = Yellow (2)

RTS ≤ 10 = Red (1)

Eye opening :		
Spontaneous	4	
To voice	3	
To pain	2	
None	1	
Verbal response :		
Oriented	5	
Confused	4	
Incomprehensible words	3	
No response	1	
Motor response :		
Obeys commands	6	
Locomotor	5	
Plant extensor	4	
Plant flexor	3	
Plants extension	2	
No response	1	
Glasgow Coma Scale Total :		
Total Glasgow Coma Scale		
13 - 15	4	
9 - 12	3	
8 - 5	2	
4 - 3	1	
Respiratory Rate		
10 - 20	4	
6 - 9	3	
1 - 5	2	
0	1	
Systolic BP		
90 mmHg	4	
60 - 89	3	
50 - 59	2	
1 - 49	1	
0	0	
12 = PRIORITY 3	Total :	
11 = PRIORITY 2	Time :	
10 or less PRIORITY 1		

Treatment – Transport?

If resources (personnel/equip) are not available to provide tx at scene - and transport resources (amb) are available - better to transport than wait for additional tx resources at scene



Transport

Assigned by & reports to EMS/Medical

Overall goals

- Establish pt loading area & ambulance exit point
- Establish contact with Resource Hospital
- Determine capabilities of potential receiving hospitals
- Assign pts to ambulances
- Assign ambulances to receiving hospitals
- Log all pts/ Tag numbers
- Provide pt. count updates to Resource Hospital

Ambulance staging



Transportation officer or staging officer should stage for easy access/egress of ambulances from treatment area

What triage category should be transported first?

Immediate
Delayed
Minor
Deceased



Transport order determined by secondary triage score

How does the NWC EMSS clear the scene of pts?



Transport 2 of the most critical pts to each of the nearest hospitals – do not overburden one facility
Transport most seriously injured (reds) 1st
Hospitals may get 2 reds prior to activating MCI plan

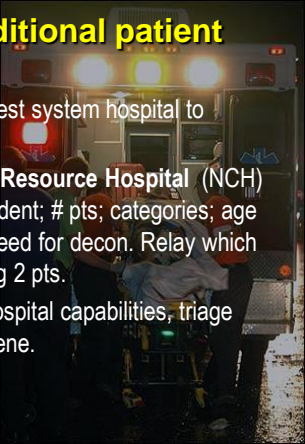
Who decides additional patient destinations?

If **small-scale**: Contact nearest system hospital to distribute remaining pts

If **med-large scale**: Contact **Resource Hospital** (NCH) ASAP: Relay nature of incident; # pts; categories; age groups, functional needs; need for decon. Relay which hospitals are already getting 2 pts.

NCH will assess receiving hospital capabilities, triage locations, & relay info to scene.

Exchange call back numbers






Receiving hospitals will re-triage



Is it necessary to keep families together at same receiving hospital?

Scenario Time!!!



START practice – Your Scenario

0815 hrs. A call to 911 is received. As 5th grade students were arriving by bus this am to XYZ Middle School for a science lab field trip, several children noted an usually large pipe on the lawn outside a classroom window near the back parking lot.

The assistant principal (911 caller) offers to meet PD outside the front of the main entrance and reports there were 2 sick calls with office staff today, including the principal.

Your Scenario continued

As the first police unit arrives, an explosion occurs near the back of the school, taking down the outside wall and windows of at least one classroom. The responding officer calls dispatch to report the event and requests additional personnel and EMS to the scene.

What are some initial thoughts and concerns regarding the incident as FIRE/ EMS is dispatched?

Your Scenario continued

The middle school houses more than 500 individuals including students and staff. As the smoke outside clears, it is evident that at least one affected room is the science lab where the 5th graders, teacher, and student teacher were present.

The adjacent rooms are another science lab and lab supplies storage room. Across the hallway in that wing of the school are the nurses office and furnace/ utility room.

Additional concerns or thoughts based on further information?

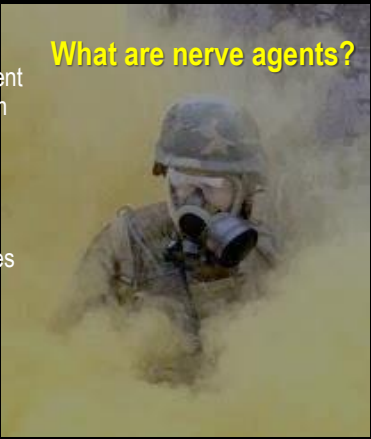
Your Scenario continued

Upon arrival, the first few victims are able to move/ stumble out of the wreckage. They are coughing with their eye tearing, complaining of chest tightness, stomach cramping, and runny noses. On exam they all have constricted pupils.

What are these victims presenting signs and symptoms of exposure to?

Highly poisonous chemicals that prevent nervous system from working properly
Chemical warfare agents or organophosphate agricultural pesticides
Immediate Tx. with drugs required, followed by long-term care

What are nerve agents?



Nerve agents / Cholinergic poisons



Pesticides/Herbicides

- Parathion; Malathion
- Chlorpyrifos
- Diazinon

Chemical Weapons

- Sarin
- Tabun
- Soman
- Cyclosarin



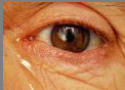
What happens when people are exposed to nerve agents?

In very small amounts, are highly toxic when inhaled, swallowed, or come in contact with skin or eyes
All routes of exposure cause extreme side effects

Rx in WARM zone: based on patient size & severity of S&S (IDPH protocol)		
Patient age/size	Mild: Unexplained runny nose, tightness in chest, SOB, bronchospasm w/ wheezing	Severe symptoms Coma, paralysis, cyanosis, apnea, seizures**
	Mod: Above + vomiting/diarrhea, pinpoint pupils, drooling, excessive sweating, abd cramps, invol urination or defecation, HA, muscle fasciculations/twitching, staggering	

“SLUDGEMM”

- S**alivation
- L**acrimation (tear secretion)
- U**rination
- D**efecation
- G**astrointestinal upset
- E**mesis (vomiting)
- M**uscle twitching
- M**iosis (pinpoint pupils)




“Killer B’s”

- B**ronchorrhea
- B**ronchospasm
- B**radycardia

(Source: Massachusetts CHEMPACK Training Program, Module 2, Slide 52)

What is the Rx for nerve agent exposure?

- ☐ PPE- full body and respiratory protection
- ☐ Airway- Suction, O₂ 15 L/NRM or BVM
- ☐ Antidote



Counter poison: Give antidotes for NERVE AGENT exposures	
Atropine (1 mg/kg) and 2-PAM (60 mg/kg) are the antidotes for nerve agent exposures. Atropine is given intravenously (IV) and 2-PAM is given intramuscularly (IM). Atropine is given in 1 mg increments until the patient is dry (no sweating) and the heart rate is > 100 bpm. 2-PAM is given in 60 mg increments until the patient is awake and the reflexes return. Atropine and 2-PAM are given together. Atropine is given first, followed by 2-PAM. Atropine is given in 1 mg increments until the patient is dry (no sweating) and the heart rate is > 100 bpm. 2-PAM is given in 60 mg increments until the patient is awake and the reflexes return. Atropine and 2-PAM are given together. Atropine is given first, followed by 2-PAM.	

What drugs are effective antidotes against chemical nerve agents?

Atropine

- Blocks excess acetylcholine
- Reduces runny nose
- Reduces salivation
- Relieves chest tightness
- Eases vomiting and diarrhea

Pralidoxime (2-PAM)

- Reactivates cholinesterase, thereby reducing levels of acetylcholine
- Reduces muscle weakness and paralysis

Diazepam (or midazolam)

- Reduces severity of agitation and seizures



How does EMS get access to the antidotes?

- If CHEMPACK assets needed:** Incident Commander shall activate their agency's CHEMPACK plan and notify their EMS System Resource Hospital of the situation. The Resource Hospital ED Charge Physician will determine if CHEMPACK assets are necessary.
- Provide the following information to the Resource Hospital and the CHEMPACK cache site:**
 - Time of chemical release exposure
 - Location of exposure event
 - Suspected chemical agent, if possible
 - Estimated number of victims
 - On-scene Incident Commander's contact name and phone number
 - Location to deliver assets
 - Individual that will be receiving the assets (Incident Commander, Logistics Section Chief, Medical Officer, Treatment Officer)
- If ED Charge Physician authorizes release of CHEMPACK assets,** the Resource Hospital shall contact the appropriate CHEMPACK cache site of the need to deploy 1/3* (or as needed) of their EMS CHEMPACK assets. Provide that facility's ED Charge Nurse with the above listed information. Resource Hospitals with a CHEMPACK cache will deploy 1/3* of their assets (or as needed) prior to contacting the closest CHEMPACK cache site.
- EMS (Field) Incident Site Mobilization**
 - The designated receiving agency individual (e.g. Incident Commander, Logistics Section Chief, Medical Officer, Treatment Officer) will sign for custody of the delivered CHEMPACK assets on **Copy B- Yellow Chain of Custody Transfer Form**, releasing the Law Enforcement courier of custody of the material. Copy B- Yellow will remain with Law Enforcement courier.
 - Copy C - Blue Chain of Custody Transfer form will remain with the receiving agency.
 - The designated receiving agency individual who signed for the CHEMPACK assets at the incident site will be responsible for the accounting, securing, deploying, and reporting of the unused assets.
 - The EMS System Provider will be responsible for the transportation of the EMS CHEMPACK materials to the specific site location where they will be secured and maintained and dispensed.

Where are the CHEMPACKS coming from?



Depends on the agency requesting

Requesting CHEMPACK Assets creates an internal ripple effect

ED Charge RN gathers info and follows flowchart

- Consults with Medical Director/ Charge Physician to authorize release
- Completes CHEMPACK Release Form
- Request NCH security to assist until AHPD arrives (or designated police entity if AHPD unavailable)

Realistically assets may take 45 minutes to arrive

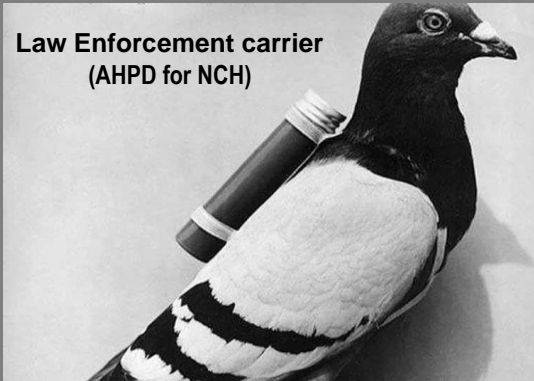
EARLY NOTIFICATION IS PARAMOUNT!

CHEMPACK EMS ASSEST DISTRIBUTION

NCH	ABMC
Arlington Heights	Bloomington
Barrington	Elk Grove Village
Buffalo Grove	Elk Grove Township
Inverness	Hoffman Estates
Lake Zurich	Itasca
Lincolnshire RW	Schaumburg (if ABMC is closer than NCH to the incident)
Long Grove	Wood Dale
Mount Prospect	
Palatine	
Prospect Heights	
Rolling Meadows	
Schaumburg	

How do assets get to the scene?

Law Enforcement carrier
(AHPD for NCH)



Back to our scenario

You've been assigned to the triage group

