

Emergency Preparedness & Resilience

Presented By:



Surge Scramble

Adapting CDC's Pan Flu Scramble to Six Functional **MRSEs**

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Introduce the Pan Flu Scramble

 CDC activity to flood the community healthcare sector with patients represented by 5X7 cards

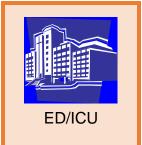
#1 Emergency Department Round 1 • 8 month old female • Temperature of 104°F (40°C) • Increased work of breathing with retractions • Poor muscle tone • Cyanosis • No previous medical history Vital signs upon evaluation: Temp-104°F, Pulse-130, Respiration-32, Blood Pressure-80/48

Round 1	
☐ Keep this patient for treatment	
□ Release this patient to go home	
□ Seek to transfer this patient to	who:
□ Accepts transfer request	
☐ Rejects transfer and returns patient to ED	
Round 2	
☐ Keep this patient for treatment	
☐ Release this patient to go home	
□ Seek to transfer this patient to	who:
☐ Accepts transfer request	
☐ Rejects transfer and returns patient to ED	











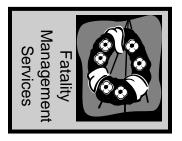
























Tasked with 2023/4 MRSE functional exercise

- Chemical Event (new annex)
- ASPR's evaluation tool
 - We needed to collect all that data
- Agencies present/invited
- Conducted a day after Symposium (focus on Chemical events)
 - Overview of Annex and Chempack program
 - Hazmat on-scene procedures
 - Treatment protocols for organophosphates



PowerPoint with instructions

- 1.All your instructions will come from us. We'll project the scenario up on this PP
- 2. We are going to direct you to Victim Cards when it's time
- 3. Then we are going to give you time to process the incoming victims. But not too much time.
- 4. Then we'll stop the activity and check in with you as a large group and ask you to update your numbers. More to come
- 5. Then we'll ask lots of questions, some specifically aimed at hospitals and EMS, but others may be to the entire room
- 6.If you have an answer....raise your flag, pick up your microphone and wait to be called on



Scenario

At approximately 9:00 AM, a chemical tanker truck carrying organophosphates overturned near a major intersection(90th and Dodge), leading to a catastrophic release of toxic chemicals. The incident has affected a hundreds of people in the vicinity, including pedestrians, motorists, and residents/occupants in nearby buildings as the plume drifts southeast. The following facilities are in the path













Facilitator









Items on each table

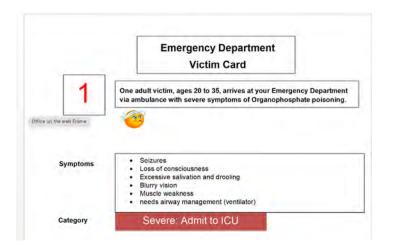


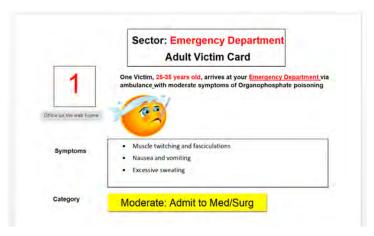




20% of staffed beds and 85/15/rule

Revised Patient Cards







Healthcare Coalition Medical Response and Surge Exercise (MRSE)

Please answer all of the following questions. This data must be collected and reported to the Administration for Strategic Preparedness and Response (ASPR) in accordance with the Coalition's funding guidelines.

EMS agencies should complete the following questions based on your response to the scenario:

- 1. Which EMS agency are you representing?
- 2. Please complete the following table at the beginning and end of the exercise to indicate the availability of EMS resources.

Resource Type	Number available at beginning of functional exercise	Did your facility have enough to respond to the incident?
Ground Ambulance (Basic		
Life Support)		
Ground Ambulance		
(Advanced Life Support)		
Hazmat Team		
Decontamination Team		
Specialized Protective		
Equipment		



Healthcare Coalition Medical Response and Surge Exercise (MRSE)

Please answer all of the following questions. This data must be collected and reported to the Administration for Strategic Preparedness and Response (ASPR) in accordance with the Coalition funding guidelines.

Hospitals should complete the following questions based on your facility's response to the scenario:

- 1. What is your hospital's name? _____
- 2. Please use the following tables to record the availability of resources throughout the exercise:

Personnel Type	Total number available before exercise (call your facility for this info at the beginning of the exercise).	(end of exercise) Did you have enough to care for existing and surge patients?				
Respiratory therapists		Yes No				
Pharmacists		Yes No				
Trauma, Emergency Department, and Perioperative Services Staff		Yes No				
Pediatrics, Neonatal, and Obstetric Services Staff		Yes No				
Laboratory and Diagnostic Imaging Services Staff		Yes No				
Environmental Services Staff		Yes No				
Clinical Supply Staff		Yes No				
Facilities and Information Technology Staff		Yes No				
Security Staff		Yes No				
Resource Type	Total number available before exercise (call your facility for this info at the beginning of the exercise).	(end of exercise) Did you have enough to care for existing and surge patients?				
Pressor Medications		Yes No				
Respiratory Medications		Yes No				
Anticonvulsant Drugs		Yes No				
Antidotes (e.g. Atropine, Hydroxocobalamin)		Yes No				
Intravenous Fluids		Yes No				
Oxygen		Yes No				
2-pam Chloride		Yes No				
Infusion Pumps		Yes No				
Ventilators		Yes No				
Bedside Monitors		Yes No				
Airway Suction (Adult & Pediatric)		Yes No				
Supplies Needed to Administer Pharmaceuticals, Blood Products		Yes No				



Bed Type	Number of open beds at the beginning of the exercise (call your facility for this information).	Did your facility have enough to respond to the incident?
Emergency Department Beds		Yes No
General Medical Unit Beds		Yes No
ICU Beds (SICU, MISU, CCU)		Yes No
Post Critical Care		Yes No
(Monitored/Stepdown) Beds		
Surgical Unit Beds (Pre-op., Post-		Yes No
op., and Procedural)		
General Pediatric Unit Beds		Yes No
Pediatric ICU Beds		Yes No

Please complete the following questions related to patient movement at the end of each round.

Hospital Census at the beginning of the exercise	

Patient Movement	Number at end of exercise
Surge patients received and admitted	
Transfer patients received and admitted	
Number of existing patients discharged to accommodate surge	
Number of patient transferred to another facility to accommodate surge	
Number of existing and surge patients that did not receive an appropriate staffed bed	
at your facility and/or transport to another facility (i.e. patients awaiting admission)	



Iospital Name:	
xisting patients transferred out	
uura matiamta tuomafaurad aut	
urge patients transferred out	
xisting patients discharged	



Email sent before exercise

- Hospitals given a list of current day info needed based on HCC test objectives
 - Bed counts by type
 - Supplies on hand
 - Personnel on hand
- Instructed to bring phone numbers of colleagues at facility
- This becomes a functional exercise!



Played 2 Rounds at 10% for each

• Experts in the room

Updated tally/data collection sheets at the end of each round

- Reported out
 - First hospitals
 - Then all partners in room



Evaluation Overview

- Participant feedback
- Healthcare Coalition Coordinator feedback
- Future considerations



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Participant Feedback Collection Methods

Healthcare Coalition Medical Response and Surge Exercise (MRSE)

Please complete the following questions as part of the Healthcare Coalition MRSE evaluation.

	What is your organization?					
2.	Are you an executive for your org	anization? Y	es No			
P	lease fill in the bubbles below to i		vel of agreem	ent with eac	h statement about the	exercise
	The Coalition engaged coalition n	nembers and th	eir executives	to participat	e in the MRSE and the A	After Action
	0	0	0	0	0	
	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	
	The Coalition effectively notified ilitated during a community-wide			modeled ho	w information sharing w	ould be
	0	0	0	0	0	
	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	
	The Coalition demonstrated its algorithms algorithms and the control of the contr					ls (supplies,
	0	0	0	0	0	
	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	
	The Coalition exhibited its ability items items in the community items.			l EMS persoi	nnel and resource needs	s to manage
	0	0	0	0	0	
	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	
pla	The Coalition displayed its ability cement during a large-scale patier e resources.					
	0	0	0	0	0	
	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	
8.	The Coalition showcased its abilit community-wide emergency or d	•	y coordinate a	nd execute a	ill relevant response pla	ns during a
	0	0	0	0	0	
	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	
	The MRSE evaluated the readines used by chemical contamination.	s and response	capabilities of	f hospitals in	handling a mass casualt	ty event
	0	0	0	0	0	
	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	

Participant Feedback Collection Methods

	es, and public health a		nmunication a	among the I	ICC, healthcare facilitie	s, first
_	0	0	0	0	0	
	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	
	E determined the abil ndards of Care.	ity of hospitals	s to surge by	at least 20%	of their staffed beds and	d initiate
	0	0	0	0	0	
	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	
	E identified areas for chemical incident.	improvement	in the emerge	ency respon	se plan and resource allo	cation
	0	0	0	0	0	
	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	
Please fill in th	ne bubbles below to inc		eement with e xercise.	each question	n in relation to the format	of this
			with an oppor	tunity to di	scuss between rounds of	events) is
an effective	ve format for the MRS	SE.				
an effectiv	ve format for the MRS	o O	0	0	0	
an errecu	O Strongly disagree	O Disagree	O Neutral	O Agree	O Strongly agree	
	O Strongly disagree	O Disagree			O Strongly agree the exercise objectives.	
	O Strongly disagree	O Disagree				
	O Strongly disagree	O Disagree				
14. The 20% Please answe even	O Strongly disagree staffed bed surge was O Strongly disagree r the following quest	O Disagree an effective n O Disagree ions and cons ring the exerc	umber of pati O Neutral ider the exercise, and the	ients to test O Agree rcise forma actions of 6	the exercise objectives. O Strongly agree t and design, the scena exercise participants.	rio, the
14. The 20% Please answe even	O Strongly disagree staffed bed surge was O Strongly disagree r the following quest ts that played out du	O Disagree an effective n O Disagree ions and cons ring the exerc	umber of pati O Neutral ider the exercise, and the	ients to test O Agree rcise forma actions of 6	the exercise objectives. O Strongly agree t and design, the scena exercise participants.	rio, the
14. The 20% Please answe event 15. What is o	O Strongly disagree staffed bed surge was O Strongly disagree r the following quest ts that played out du	O Disagree an effective n O Disagree ions and cons ring the exercent from your	umber of pati O Neutral ider the exercise, and the participation	Agree rcise forma actions of o in the MRS	the exercise objectives. O Strongly agree t and design, the scenaexercise participants. E?	rio, the
Please answer even 15. What is o	O Strongly disagree staffed bed surge was O Strongly disagree r the following quest ts that played out du ne area for improvem	O Disagree an effective n O Disagree ions and cons ring the exercent from your	Neutral ider the exercise, and the participation	Agree rcise forma actions of o in the MRS	the exercise objectives. O Strongly agree t and design, the scenaexercise participants. E?	rio, the
Please answer even 15. What is o	O Strongly disagree staffed bed surge was O Strongly disagree r the following quest ts that played out du ne area for improvem	O Disagree an effective n O Disagree ions and cons ring the exercent from your	Neutral ider the exercise, and the participation	Agree rcise forma actions of o in the MRS	the exercise objectives. O Strongly agree t and design, the scenaexercise participants. E?	rio, the

Participant Feedback Collection Methods

- Hot wash
 - What went well with exercise operations?
 - What could be improved with exercise operations?
 - What went well with exercise design?
 - What could be improved with exercise design?



Participant Feedback Average Ratings

Agency	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q	(12	# of Respondents
Emergency														
management	4.	50	4.00	4.50	4.00	4.00	4.00	4.00	4.50	4.00	4.50	4.50	4.50	2
EMS	4.	83	4.72	4.83	4.56	4.22	4.22	4.67	4.50	4.11	4.22	4.39	3.94	7
Hospital	4.	62	4.56	4.48	4.34	4.31	4.47	4.52	4.49	4.37	4.54	4.56	4.15	121
Long term														
care	4.	36	4.42	4.31	4.32	3.96	4.26	4.24	4.10	4.42	4.20	4.65	4.10	19
Public health	4.	39	4.48	4.25	4.00	4.24	4.19	4.19	4.07	4.08	4.38	4.30	3.74	23
Other	4.	41	4.47	4.37	4.32	4.28	4.34	4.36	4.36	4.14	4.30	4.28	4.11	47
Composite	4.	<mark>52</mark>	4.44	4.46	4.26	4.17	4.25	4.33	4.34	4.19	4.36	4.45	4.09	219

Highest Average by Organization Type

Lowest Average by Organization Type



Participant Feedback Average Ratings - Highest

Agency	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	. #	of Respondents
Emergency														
management		4.50	4.00	4.50	4.00	4.00	4.00	4.00	4.50	4.00	4.50	4.50	4.50	2
EMS		4.83	4.72	4.83	4.56	4.22	4.22	4.67	4.50	4.11	4.22	4.39	3.94	7
Hospital		4.62	4.56	4.48	4.34	4.31	4.47	4.52	4.49	4.37	4.54	4.56	4.15	121
Long term care	1	4.36	4.42	4.31	4.32	3.96	4.26	4.24	4.10	4.42	4.20	4.65	4.10	19
Public health		4.39	4.48	4.25	4.00	4.24	4.19	4.19	4.07	4.08	4.38	4.30	3.74	23
Other		4.41	4.47	4.37	4.32	4.28	4.34	4.36	4.36	4.14	4.30	4.28	4.11	47
Composite		4.52	4.44	4.46	4.26	4.17	4.25	4.33	4.34	4.19	4.36	4.45	4.09	219

Question 1:The coalition engaged coalition members and their executives to participate in the MRSE and After Action Report.

Question 2: The coalition effectively notified members of the exercise and modeled how information sharing would be facilitated during a community-wide emergency or disaster.

Question 3: The coalition demonstrated its ability to assess and meet the critical personnel and resource needs (supplies, personnel, etc.) to manage a patient surge during a community-wide emergency or disaster.

Question 11: The Scramble (in-person functional exercise with an opportunity to discuss between rounds of events) is an effective format for the MRSE.



Participant Feedback Average Ratings - Lowest

Agency	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	;	# of Respondents
Emergency														
management		4.50	4.00	4.50	4.00	4.00	4.00	4.00	4.50	4.00	4.50	4.50	4.50	2
EMS		4.83	4.72	4.83	4.56	4.22	4.22	4.67	4.50	4.11	4.22	4.39	3.94	7
Hospital		4.62	4.56	4.48	4.34	4.31	4.47	4.52	4.49	4.37	4.54	4.56	4.15	121
Long term care	!	4.36	4.42	4.31	4.32	3.96	4.26	4.24	4.10	4.42	4.20	4.65	4.10	19
Public health		4.39	4.48	4.25	4.00	4.24	4.19	4.19	4.07	4.08	4.38	4.30	3.74	23
Other		4.41	4.47	4.37	4.32	4.28	4.34	4.36	4.36	4.14	4.30	4.28	4.11	47
Composite		4.52	4.44	4.46	4.26	4.17	4.25	4.33	4.34	4.19	4.36	4.45	4.09	219

Question 5: The coalition displayed its ability to reduce patient morbidity and mortality through appropriate patient placement during a large-scale patient surge by assisting with the identification and coordination of available patient care resources.

Question 12: The 20% staffed bed surge was an effective number of patients to test the exercise objectives.

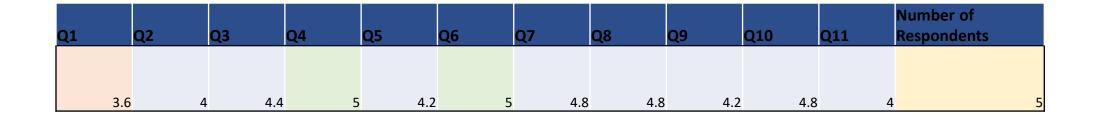
Coalition Coordinator Feedback

- Level of agreement with each statement:
- 1. The 20% surge of hospital staffed beds effectively tested the HCC's response plans.
- 2. The 85/15 rule (85% of patients are treat and release, 15% are critical and require admission) was an effective format for the severity of the patients.
- 3. The patient cards were an effective way to simulate patients for the in-person functional MRSE.
- 4. The hospital data collection forms were an effective tool to collect the required data for ASPR.
- 5. The EMS data collection forms were an effective tool to collect the required data for ASPR.

- Partnering the Symposia and MRSE was an effective way to engage members and provide education on emergency preparedness topics.
- 7. I felt engaged during the MRSE planning process.
- 8. The MRSE helped meet the coalition and partner's emergency preparedness needs.
- 9. The topic (chemical) of the MRSE was a good topic for a surge exercise.
- 10. The facilitation of the MRSE was engaging and effective.
- 11. The in-person functional, as opposed to a functional with a Simulation Cell, was a good format for the MRSE.



Coalition Coordinator Feedback



- 1. The 20% surge of hospital staffed beds effectively tested the HCC's response plans.
- 4. The hospital data collection forms were an effective tool to collect the required data for ASPR.
- 6. Partnering the Symposia and MRSE was an effective way to engage members and provide education on emergency preparedness topics.



Participant Exercise Design Themes

Good:

- Diversity of Attendees
 - Networking
 - Brainstorming
 - Engagement
 - Collaboration
- Room setup
 - Microphones
 - Homogenous tables
- Patient cards
 - Cards themselves
 - Envelopes "the unknown"
- Real-time information





Participant Exercise Design Themes

Areas for Improvement:

- Hospital-centric
 - Disengaged: LHD, LTC, non-hospital healthcare
- Attendees
 - Needed:
 - EMS
 - Emergency management
 - Hospital
 - Clinical
 - Administration
 - Desired:
 - Law enforcement
 - Dispatch
 - Weather service



Participant Exercise Design Themes

Areas for Improvement:

- Introductions
- Room setup
 - Homogenous tables
- Surge not stressful
- Scenario
 - Chemical
 - On-scene details
- Exercise run time





Future Considerations

- EMA and EMS participation
 - Survey, discussion if unable to attend
- More surge
 - >20% (if using 85/15)
 - Time of year
 - Patient acuity
- Scenario:
 - Not chemical
 - More details for first responders
 - Recovery
 - Public health activities
 - Prolonged stress
 - Length of patient stay on card
- Inject: Non-hospital healthcare needs patients
- Test the information-sharing system
- Fewer objectives



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Thank you!

