

Hospital Area Command Drills

Fall, 2024

Free Standing Emergency Departments



Hospital Area Command Exercises

Free Standing Emergency Departments

Fall 2024

After-Action Report

In July 2024, the Southern Nevada Health District's (SNHD) Office of Public Health Preparedness (OPHP) initiated the process to host Hospital Area Command (HAC) exercises for all Free-Standing Emergency Departments (FSED) in Clark County. The intended goal of these drills was to provide a smaller version of the May 2022 HAC drills held at all 17 hospitals located in Clark County.

Hospital Area Command is a regional response model developed in the wake of the Route 91 Harvest Festival mass shooting that took place on the Las Vegas "Strip" on October 1st, 2017. This response model was created and vetted by local fire, EMS, law enforcement, area hospitals, and the SNHD. The policy was then implemented by the Southern Nevada Fire Operations (SNFO) Group which is made up of the Operation's Chiefs from the Clark County Fire Department (CCFD), Las Vegas Fire & Rescue (LVFR), Henderson Fire Department (HFD), North Las Vegas Fire Department (NLVFD), Mesquite Fire Department (MFD), and Boulder City Fire Department (BCFD).

The HAC concept came about by chance. On that tragic October evening, a HFD engine company and rescue unit were at Sunrise Hospital when a large wave of critically injured patients arrived at the ER entrance, most by privately owned vehicles (POV). These fire crews quickly began supporting the ER staff, enhancing their effectiveness by assisting with triage and patient care, including advanced life support (ALS) interventions. Undoubtedly, patient outcomes were greatly improved because of their actions. This event clearly demonstrated the advantages of having fire department (FD) units collaborate with local ERs during times of patient surges, leading to the development of the HAC concept.

Looking to get these FSED drills in motion, Jeff Quinn, manager for the SNHD OPHP, reached out to several members of the exercise team (ET) that ran the May 2022 drills and asked if they were willing to participate in this round of drills. Karen Donnahie (clinical advisor and Medical Surge Support Team (MSST) manager for SNHD), Greg Cassell and Jon Wiercinski (both retired CCFD executive staff members) all quickly accepted the offer and soon began collaborating on some options. Given the lack of involvement with the 911 system in the May 2022 drills, the ET developed a different approach to these drills. To effectively implement this plan, we recognized the need for additional personnel and successfully secured approval to expand our team. The SNHD added the following individuals: David Greer (Senior Public Health Preparedness Planner), Ian Imperial (Public Health Preparedness Planner), and Stacy Johnson (Regional Trauma Coordinator). In addition, the Clark County Office of Emergency Management (CCOEM) contributed two more team members: Brian Larsen and Damon Ruemmele, both retired fire captains from the Clark County Fire Department. With the newly added members onboard, the ET was divided into three specific teams:

- Team 1 (Donnahie, Ruemmele, Imperial),

- Team 2 (Wiercinski, Greer, Johnson)
- Team 3 (Cassell, Larsen).

Teams 1 & 2 were assigned to a specific FSED for each drill, Team 3 was assigned to the respective dispatch center for the fire entities involved.

Together these teams would assess the following:

- Ability for each FSED to handle a sudden rush of critical patients from a hostile mass casualty incident (HMCI) close by.
 - Each drill would include 2 FSED locations being tested at the same time.
- Ability for the dispatcher to initiate HAC at the request of a battalion chief (BC) responding to a notional HMCI.
 - By SNFO policy this means an available BC would be contacted and asked to set up HAC.
 - The BC and the dispatcher would determine the two closest hospitals and trauma center to the location of the HMCI.
 - Once the hospitals were determined, engine or truck company would be sent to each of those locations.
- Ability for a staff member at the FSEDs being tested to “call 911”, relay pertinent information to the dispatcher and request help.
 - In order to not tie up an actual 911 line, the “911” call was made to a cell phone of a Team 3 member. The dispatcher answered that phone as if it was an actual 911 line.
- Ability for the dispatcher to process the information from the FSED calling 911, notify HAC that there was request for assistance at that new location, assign a unit to respond and notify HAC which unit is going.
 - Example: “HAC from dispatch, E-26 is enroute the ER @ The Lakes.”
- Ability of the BC to handle the injects from the two notional hospitals and trauma center, then adapt their command to accommodate the two FSEDs calling in for assistance.
- Ability of the dispatcher to handle the HAC IC’s response to injects and their supporting requests.
- Ability for the responding engine/truck company to integrate with the FSED staff and manage the surge of patients.

The first set of drills took place in Henderson on September 16th, 2024. The remaining drills began on October 2nd and concluded on October 4th, 2024. In all, a total of 17 FSED locations participated in the exercise. Working with the FSEDs directly, ET member Karen Donnahie scheduled each of them for their specific date and time. Times for the drills were 0900, 1130, and 1400. The drills in Henderson were during the morning sessions only and involved just one FSED at a time. This allowed for HFD to have two drills instead of just one. The drills for CCFD/LVFR/NLVFD had two FSEDs for each drill.

This After-Action Report (AAR) will provide information taken from the exercises in the following areas:

I. Successes

II. Challenges

III. FSED Considerations

IV. HAC Policy Recommendations

V. Artificialities

VI. Feedback/Survey Results

VII. Acronyms

VIII. Attachments

Hospital Area Command Exercise, FSED, After-Action Report – October 2024

I. Successes

In this round of HAC drills the focus was expanded to include Team 3 being in the participating dispatch center. The intent with this change was to evaluate the challenges at those locations regarding not only call taking and data entry, but the interaction with the battalion chief (BC) who was going to fill the position of HAC Incident Commander (HAC IC). This also allowed for an in-person evaluation of the dispatch environment instead of a “how did things go on your end” phone call which would not have provided the same level of evaluation. As for Teams 1 & 2, they would be onsite at their assigned FSED location.

Similar to the drills in 2022, the facility being tested would experience a sudden surge of patients from a HMCI. Patients at these FSEDs “arrived” via POV. To maintain consistency between the scenarios at each FSED, Teams 1 & 2 had set of 9 mannequins which were identical. Every mannequin had an attached “patient card” that contained patient information to include age, gender, pertinent medical history to include medications and allergies, type of injury suffered, level of consciousness, and vital signs. The severity of the mannequins simulated injuries ranged from dead on arrival, critical, delayed and minor. Although each team was equipped equally, they had the ability to deploy the mannequins at their discretion in regard to how many arrived at a time and the time between arrivals.

The participation and feedback from the FSEDs were largely positive. However, one facility experienced a challenge, as the doctors opted not to participate, leaving a charge nurse to manage the drill on her own. Despite the circumstances, she demonstrated great dedication and did her best to navigate the situation. This incident was an isolated occurrence

The success of the ET was rooted in their well-established internal relationships, internal and external operational credibility in their areas of expertise, and ability to communicate clearly to all who were

involved in the drills. This included assisting in policy review, coordination with numerous agencies, and successful training outcomes.

It's worth noting that these drills focused on a HMCI, however, this concept may be applied during Mass Casualty Events (MCI) that are not the result of hostile actions.

II. Challenges

The Incident Command System (ICS) and its ability to be quickly and easily utilized in any situation provides the foundation for HAC. For these drills the training material and parameters were intended to maintain this level of ease by focusing on:

- The interaction of FSED staff and the arriving fire department unit.
 - Specifically, the charge nurse and fire captain effectively communicating needs and capabilities as to provide optimal patient care and coordination of eventual patient transfer.
 - Capabilities of the fire unit's personnel and their respective EMS skill levels to make a positive impact in patient care.
 - Understanding by fire personnel that they are *assisting* the FSED staff and must defer to their direction and discretion on patient care and the process required to transfer a patient from one facility to another.
 - Ability of fire personnel to assist with "other" needs the FSED may encounter or ask of them.
- The interaction of the dispatch staff and the HAC IC working through the steps outlined in SNFO-14:
 - Dispatch contacting the BC, informing them about the HMCI and the request for HAC to be established.
 - Determining the two closest hospitals and the closest TC to the address of the original HMCI.
 - Dispatch assigning units to those facilities.
 - HAC IC coming up on the assigned tach-channel and announcing HAC IC.

Although the concept of HAC is relatively simple from the perspective of command and control, the dispatch centers had a few specific challenges. Here are some observations:

- Initial interaction with the dispatcher and the BC to determine the closest two hospitals and closest TC to the HMCI's location is time consuming.
 - Very few people know where every hospital is, let alone the FSEDs.
- Determining the closest available units to specific hospital, TC or FSED is challenging.
 - The dispatcher had to go into the computer aided dispatch (CAD) program and open an incident for each hospital, TC and FSED (requesting help) in order to determine who was the closest unit to them.

- This resulted in the dispatcher having at least 4 different “incidents” open. This takes several minutes to complete in CAD and the menus to do so are rarely used and likely won’t be on the forefront of the dispatcher’s mind.
 - Example:
 - HMCI at Craig Ranch Regional Park:
 - 2 closest hospitals: North Vista and Valley.
 - Closest TC is UMC.
 - Closest FSED Craig / Martin Luther King
 - This is 4 separate “incidents”
- It should be anticipated that some FSEDs may be calling in with a request for help before the HAC IC is actually up and functioning. This will likely add to the confusion in the dispatch center, especially if that FSED is another jurisdiction from the original HMCI.
 - Example:
 - An HMCI occurs at the “M Resort” in HFD’s jurisdiction. Patients fleeing the incident arrive at the ER @ South Las Vegas Boulevard in CCFD’s jurisdiction.
 - Those 911 calls may go to different Primary Safety Answering Points (PSAP).

Another challenge encountered during the drills was that some of the participating fire crews claimed they had never heard of HAC, let alone had viewed the HAC video. Even when assigned to participate in the drill, they still failed to ask what the drill was about or were never told what to expect and/or were never told that the video existed. This highlights a training and communication failure that is likely present in all regional fire departments.

Each rolling piece of fire apparatus in Clark County, regardless of jurisdiction, has HMCI bags capable of treating up to 15 patients. Some crews brought these with them as they approached the FSED, some didn’t. These bags are invaluable in incidents like these and should be on hand at all times.

Poor communications are a frequently mentioned topic when it comes to reviewing drills and actual events. These drills proved that this is still an issue. Communication issues noted were:

- Fire personnel assigned as “division supervisors” reporting the number and severity of patients at each location.
 - In all actuality, this information is not needed and incredibly disruptive.
 - In a HAC situation the patients are already at a hospital or FSED so the HAC knowing how many (black/red/yellow/green) patients exist is irrelevant.
 - The amount of radio traffic and confusion created by “divisions” trying to report (or HAC IC requesting) this information was noticeable and counterproductive.
 - Several important messages were delayed in being transmitted while this was taking place.

- The information that the HAC needs from its divisions is how many transport units they actually need for critical patients.
 - During these drills, several division supervisors ordered a strike team (ST) of ambulances when they only had a couple critical patients at that moment.
 - The reality is the ambulance system level will be zero during incidents like this and available transport units must be used wisely.
 - FSEDs and the fire crews operating at them will have to manage their respective patient care issues for much longer than anticipated.
- HAC doesn't need to know the call signs of the medic units headed to each FSED.
 - This took up a lot of radio time, again delaying the transmission of more important radio traffic
 - They only need to know and then communicate to the respective divisions that their request for transport units was acknowledged and filled (fully, partially or not at all given resource availability at that time).
 - Example: Spring Valley Division from HAC IC, your request for a ST of ambulances can't be filled at this time. You are only getting two ambulances and one rescue unit.

At the time of the drills, many of the participating FSEDs were operating at or near capacity. Each drill took less than one hour to complete. Consisting of a short briefing by the ET members onsite followed by a 20-25 minute hands-on-exercise and then a 10–20-minute hotwash. This brief intrusion into the ER staff's day seemed well received by all except the aforementioned facility where the doctors refused to participate.

III. FSED Considerations

Some of the positive issues noted by the teams working at the FSEDs and noted as *Best Practices* were:

- Charge nurses that have a strong command presence and the ability to embrace the support of fire crews.
- Use of small portable radios by some facilities which greatly improved internal communications and ultimately better communications with FD personnel.
 - See an example in the Section VIV, Attachments, 2, of this report.
- One physician began the transfer process during triage.
 - In a real situation this would be a time saver for transferring out critical patients. They would be in the que quicker.
- A paramedic introduced themselves to the charge nurse and said “I can intubate, decompress chests, start IVs, give meds”, etc.
 - By listing out their capabilities to the charge nurse, the nurse had a clear understanding of what the medic could do. This was well received.
- FSED staff divided patients into specific rooms by severity.

- All the critical patients in one room so the doctors didn't have to move around as much.
- Use of colored duct tape by facility personnel. This is a Best Practice carry over from UMC's drill in 2022.
 - Some used black, red, yellow and green duct tape to mark:
 - A piece of tape approximately 12" in length was placed on the chest of the patient, clearly marking them as having initial triage and where they should be moved to.
 - The areas where patients should be placed were marked by a large piece of tape approximately 6-7 feet up the wall, easily visible from a distance.
 - One facility put colored tape on the ground to direct the delivery of patients to the correct location once they were triaged.
 - See an example in the Section VIV, Attachments, 3, of this report.

THE USE OF TAPE OVER TRIAGE TAGS AND RIBBONS SEEMED TO BE PREFERRED!

Some of the opportunities for improvement noted by the teams working at the FSEDs were:

- Staff being able to open and control entrance/exit points that may be locked during regular operations.
- During training events, consider upstaffing so the facility staff can accommodate both real world patients and those coming as part of a drill.
- Where communications were not great, a lot of time was used on redundant activities.
- While medical facilities are considered safe areas, staff must consider elements of scene safety in surge responses. Ensuring a safe response to an HMCI patient surge requires awareness of the possibility of encountering hostility while responding to arriving patients. Staff safety is a vital element to surge response. Facility security, with the collaboration of local law enforcement, can create a simple and memorable process to establish, secure and manage a receiving area for patient screening and triage.
- Nurses and physicians are comfortable triaging patients using the standard Emergency Severity Index (ESI) methodology of triage but are much less familiar with the practice of mass casualty triage. It is often difficult for professional caregivers to refrain from providing "all the things" for each patient encountered, rather than focusing on doing the "most good for the most people", especially in the primary stages of response.
- Hospital staff would benefit greatly from regular review and participation in field triage systems used by first responders (i.e. SALT / START). Practicing these types of field triage programs would enable hospital staff to easily transition from ESI into MCI triage. Understanding and using MCI field triage allows the staff to be consistent with prehospital MCI triage processes. Another benefit of using the START or SALT triage system can assist in moving patients. Many of the walking wounded will be able to move to a designated area to await treatment without using a gurney or wheelchair. Some may even be able to help transport a friend/family member who needs a little mobility assistance, allowing clinical staff to care for more severely injured patients.
- The sheer number of patients encountered with a surge creates difficulty in keeping track of patient numbers, triage categories and current locations of patients who have arrived. The

utilization of non-clinical individuals to act as scribes for the charge nurse and/or the triage nurse is recommended.

IV. HAC Policy Recommendations

The current version of SNFO-14 is operationally sound. The changes enacted by the SNFO Chiefs in 2022 worked well. However, there are opportunities for improvement. The areas that need to be further explored are:

- Dispatch-
 - Seek out and identify options to address the dispatchers need to create separate “incidents” for each hospital, trauma center, and FSED involved in an incident.
 - One senior dispatcher recommended that a 7-digit number be provided to hospital/FSED staff to use as a backup to 911.
 - The thought process was that 911 may be backed up and the 7-digit number may work for them in those instances.
 - However, using a second phone to dial that number would be beneficial as hanging up on 911 is not optimal. It results in extra work as the 911 operator will have to call it back to make sure everything is ok at that number.
- Fire Department Training-
 - Every department should mandate that SNFO-14 and the HAC video are part of monthly training for all suppression personnel at least once a year.
 - This policy should be part of every department’s written test study material for promotion to paramedic (if applicable), captain, EMS supervisor, EMS coordinator / staff positions, and BC.
 - Departments should consider including an HAC review in at least one meeting of command staff/operational staff/ BCs yearly.
 - 15 minutes to read and discuss implementation.
 - The SNFO Operation Chiefs should be seen as an example of knowing how the policy is supposed to play out.
 - A map overlay of hospital, trauma center, and FSED locations should be added to tablet command and, if possible, the computer desktops at fire stations.
 - The BCs that participated in this drill and were not in their office when doing so said being in their office would have made it easier to manage the incident.
 - The other benefit of being in their office is there may be a unit in-quarters with the BC that can be immediately used as a “command team” to help the BC manage these dynamic events. Set yourself up to succeed.
- SNHD-
 - The SNHD should consider options to provide training to include the SNFO-14 document and the video yearly to all ER/FSED staff

V. Artificialities

During this exercise, the following artificialities existed:

- Only two FSEDs were exercised at a time; the other medical facilities involved were notional.
 - This may not be representative of all radio traffic and/or resource requests that a Battalion Chief (BC) or dispatcher could expect to receive.
- Fire crews and hospital personnel responded to a sterile environment free from emotion or imminent danger.
 - Signs and symptoms were only presented by patient cards placed on mannikins.
 - In a real HMCI situation we can expect that the sights, sounds, smells and overall chaos would impact response.
- There may be communication challenges present due to speech impairment, language barriers, and patients with altered levels of consciousness.
- Patients would be significantly more difficult to move than lightweight mannequins and would take exponentially longer to sift and sort.
- During a real HMCI, hospitals and responders should expect that family members will show up and demand status reports on their missing or injured loved ones.
- Law enforcement would have a much larger role at the task, tactical, and strategic level of a HMCI.
- Other artificialities included extra staffing on exercise days, just-in-time training, pre-notification, prompting a review hospital MCI support policies and procedures all can cause an overestimated level of preparedness.
- These drills focused on a HMCI as the event that caused the patient surge. It should be noted that a MCI that is not of hostile intent could result in the need for HAC as well

VI. Feedback/Survey Results

- Feedback from all drill participants was collected verbally following each training event in the form of a facilitated hotwash, and electronically using an anonymous survey. 98% (93/94) of participants in the electronic survey agreed or strongly agreed that fire department support would improve emergency department or trauma center operations during acute patient surge related to a mass casualty incident. Feedback and survey results are located in the Section VIV, Attachments, 1, of this report.
 - Due to an IT issue, the electronic survey was not available at each drill. However, the data collected is consistent with the same questions used in the 2022 HAC Drills.

VII. Summary

The Fall 2024, Hospital Area Command Drills were sponsored by the Southern Nevada Health District, in partnership with the Clark County Office of Emergency Management. These drills began on September 16th, 2024, and concluded on Friday, October 4th, 2024. All 17 free standing emergency departments in Clark County participated in the drills. The intent of these drills was twofold. One item being evaluated was the ability for these facilities to handle a sudden surge of critical patients from a mass shooting at a nearby park. The second area of evaluation was the response capabilities of area fire departments, and their regional response policy set forth by the group known as Southern Nevada Fire Operations.

The results of the drills identified a few opportunities for improvements. Most notably were the processes that emergency dispatchers need to navigate, and the processes used to identify patients by their triage level at the facilities. It is hoped that all involved in overseeing the delivery of emergency care to injured patients in Clark County read this report and if needed seek answers to questions they may have. The next steps for HAC are for the leaders in their respective areas of service delivery, identify potential solutions to issues noted in Section II Challenges, Section III FSED Considerations, and Section IV HAC Policy Recommendations.

Hospital Area Command is recognized as an industry best practice. Clark County, Nevada, not only sets the standard for this type of response but also remains dedicated to its continuous improvement. Through open communication and training with care providers at all levels, both locally and nationally, they ensure that this vital system evolves to meet the highest standards for our citizens and visitors.

VIII. Acronyms

AAR, After-Action Report

ALS, Advanced Life Support

BC, Battalion Chief

CAD, Computer aided dispatch

CCOEM, Clark County Office of Emergency Management

CCFD, Clark County Fire Department

ER, Emergency room

ET, Exercise Team

FD, Fire Department

FSED, Free Standing Emergency Department

HAC, Hospital Area Command

HFD, Henderson Fire Department

HMCI, Hostile Mass Casualty Incident

IC, Incident Commander

ICS, Incident Command System

LVFR, Las Vegas Fire and Rescue

MSST, Medical Surge Support Team

MCI, Mass Casualty Incident

NLVFD, North Las Vegas Fire Department

OPHP, Office of Public Health Preparedness

POV, Privately Owned Vehicle

PSAP, Public Safety Answering Point

SNFO, Southern Nevada Fire Operations

SNHD, Southern Nevada Health District

SALT, Sort, Assess, Lifesaving interventions, Treatment/transportation

START, Simple Triage and Rapid Treatment

SOP, Standard Operational Procedure

TC, Trauma Center

VIV. Attachments

1. Survey Results

Q1

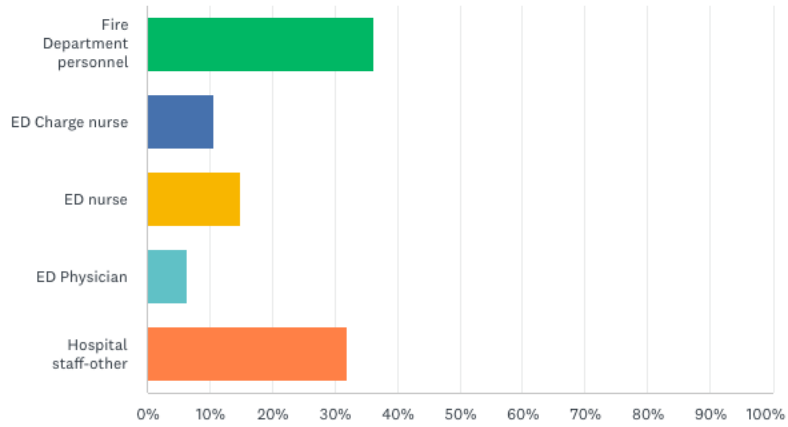


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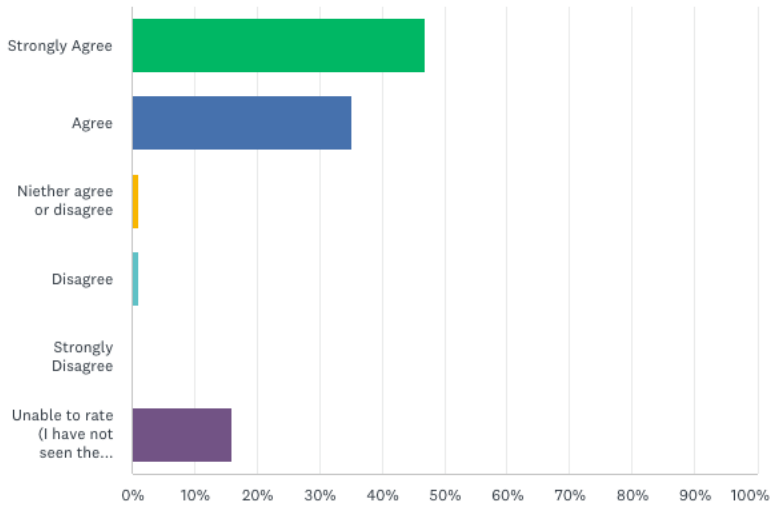
Answered: 94 Skipped: 0



ANSWER CHOICES	RESPONSES
▼ Fire Department personnel	36.17% 34
▼ ED Charge nurse	10.64% 10
▼ ED nurse	14.89% 14
▼ ED Physician	6.38% 6
▼ Hospital staff-other	31.91% 30
TOTAL	94

Following the video training, the intention of the SNFO Hospital Area Command (Hospital Support) policy was clear.

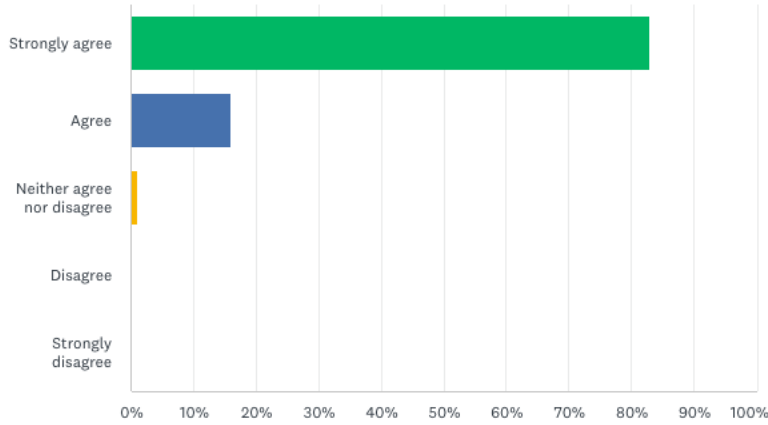
Answered: 94 Skipped: 0



ANSWER CHOICES	RESPONSES	
Strongly Agree	46.81%	44
Agree	35.11%	33
Niether agree or disagree	1.06%	1
Disagree	1.06%	1
Strongly Disagree	0.00%	0
Unable to rate (I have not seen the training video)	15.96%	15
TOTAL		94

Support of hospitals (FSED's) using fire department resources during acute patient surge is a valid concept.

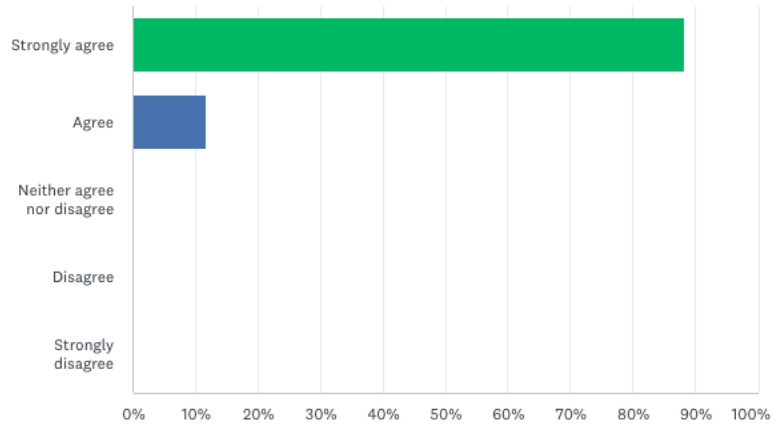
Answered: 94 Skipped: 0



ANSWER CHOICES	RESPONSES	
Strongly agree	82.98%	78
Agree	15.96%	15
Neither agree nor disagree	1.06%	1
Disagree	0.00%	0
Strongly disagree	0.00%	0
TOTAL		94

Fire department support would improve emergency department operations during acute patient surge.

Answered: 94 Skipped: 0

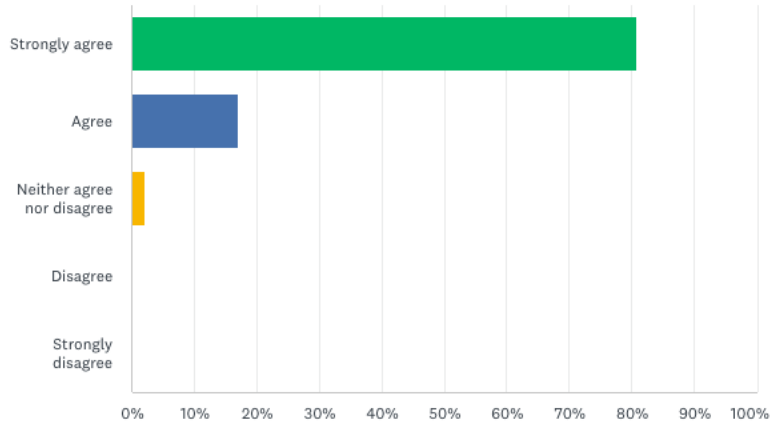


ANSWER CHOICES	RESPONSES	
Strongly agree	88.30%	83
Agree	11.70%	11
Neither agree nor disagree	0.00%	0
Disagree	0.00%	0
Strongly disagree	0.00%	0
TOTAL		94



I would be comfortable requesting hospital support if the emergency department experienced patient surge.

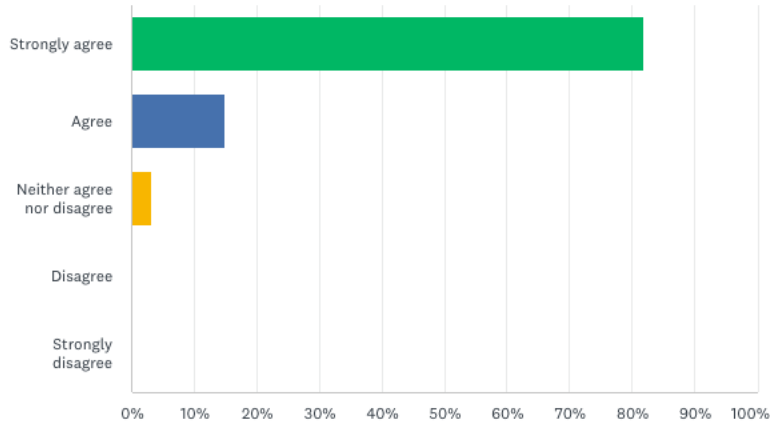
Answered: 94 Skipped: 0



ANSWER CHOICES	RESPONSES
Strongly agree	80.85% 76
Agree	17.02% 16
Neither agree nor disagree	2.13% 2
Disagree	0.00% 0
Strongly disagree	0.00% 0
TOTAL	94

Questions 6-9: If the emergency department experienced patient surge and fire department personnel were onsite, I would feel comfortable with fire department personnel conducting the following tasks: Field Triage (in the parking lot)

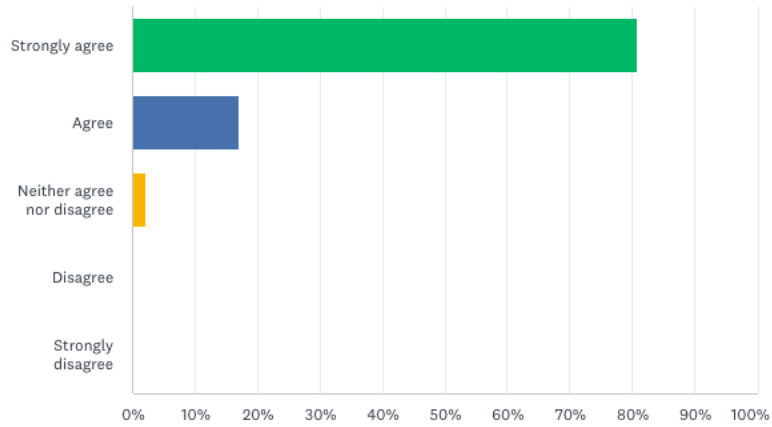
Answered: 94 Skipped: 0



ANSWER CHOICES	RESPONSES	
Strongly agree	81.91%	77
Agree	14.89%	14
Neither agree nor disagree	3.19%	3
Disagree	0.00%	0
Strongly disagree	0.00%	0
TOTAL		94

IV therapy

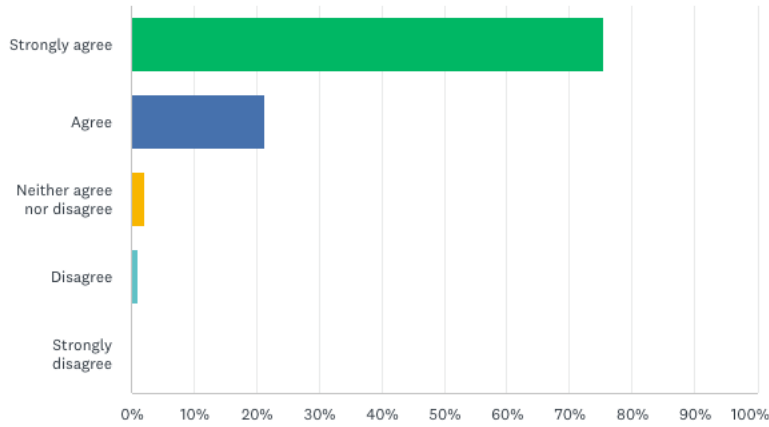
Answered: 94 Skipped: 0



ANSWER CHOICES	RESPONSES	
Strongly agree	80.85%	76
Agree	17.02%	16
Neither agree nor disagree	2.13%	2
Disagree	0.00%	0
Strongly disagree	0.00%	0
TOTAL		94

Airway management

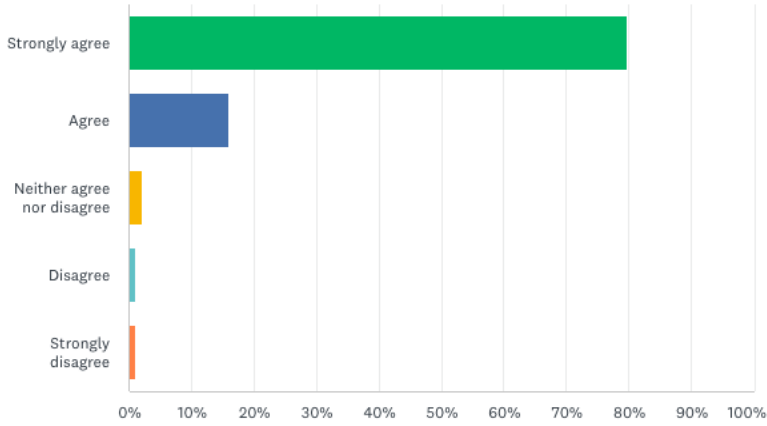
Answered: 94 Skipped: 0



ANSWER CHOICES	RESPONSES
Strongly agree	75.53% 71
Agree	21.28% 20
Neither agree nor disagree	2.13% 2
Disagree	1.06% 1
Strongly disagree	0.00% 0
TOTAL	94

Patient Transfer/movement (within the hospital)

Answered: 94 Skipped: 0



ANSWER CHOICES	RESPONSES
Strongly agree	79.79% 75
Agree	15.96% 15
Neither agree nor disagree	2.13% 2
Disagree	1.06% 1
Strongly disagree	1.06% 1
TOTAL	94

2. Example of radios used in the FSED:



3. Duct tape on the floor showing patient flow:

