


A Day Like No Other

Experiences and Lessons Learned
During the Las Vegas
Mass Shooting

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Las Vegas, Nevada

- Approximately 83 square miles
- Roughly 3/4 of the State's population lives in Clark County
- Las Vegas is the 30th largest city in the USA
- Las Vegas is the largest hotel market in the USA with 172 hotels and more than 149,300 hotel rooms
- Las Vegas is home to 3 of the worlds 10 largest convention centers
- 43 million visitors come to Las Vegas every year.



Route 91 - Harvest Festival



- 3 Day country music festival
- 22,000 attendees
- Outdoor Venue is approximately 15 acres
- All attendees were issued RFID arm-bands.
- The concert started at 3pm
- Jason Aldean takes the stage at 9:40pm

Sunday October 1, 2017 (10:07p)

"...Dispatch, Engine 11
 There's a large crowd
 running from the music
 festival down here. Do you
 have reports of anything?
 It sounds like gunfire..."



A Day Like No Other

October 1, 2017 at 10:05pm a lone gunman opens fire with rapid fire, long-guns, from an elevated, distant perch.

- There were 22,000 concert attendees
- More than 700 people were injured
- 530 +/- individuals required emergency medical care
- 58 concert-goers were killed
- NAD 5.56 was the ammo. Resulting in direct hits being DOAs. Most GSW injuries were from ricocheted bullets and bullet fragments



A Complex Incident



- 20 Individual patient locations with approximately 180 patients
- During the response there are 5 additional active shooter calls on "The Strip"
- >350 patients transported to local hospitals without any EMS interventions

The Hospital Experience

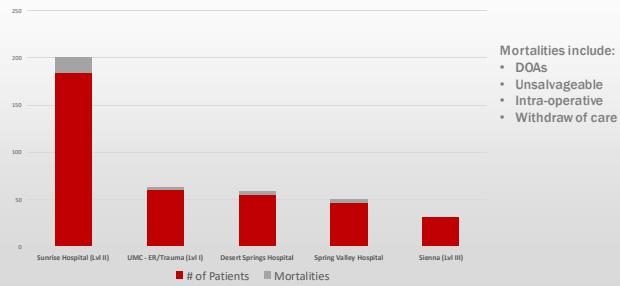
No Notice
High Volume
High Acuity
High Risk
Heightened Emotions
High Stress

Zero Situational Awareness



Video from Facebook

Patient Distribution (by number of patients initially received)





THE HOSPITAL RESPONSE

Emergency Operations Plans

- Code Triage – “All hands on deck”
 - Initiate Hospital Incident Command System
 - Initiate Lock Down and Security Plan
 - Initiate Emergency Communications Plan
 - Initiate Emergency Operations Center
 - Initiate Hospital Surge Plan
- and triage, stabilize and treat incoming patients...

Without Any Notification

- on a Sunday night
- with minimal staffing
- with low supply PAR levels
- Zero situational awareness

Triage and Initial Treatment

News World Americas

Las Vegas shooting: Iraq veteran steals pick-up truck to save lives after hearing gunfire

Ex-marine drives dozens of wounded to hospital after being caught up in festival massacre

Mr. Winston, a sergeant who served from 2006 to 2013, told the injured to apply pressure to wounds as he attempted to speed to Desert Springs Hospital "before they bleed out".

He fears some of his passengers, who included a woman with neck and chest injuries, may have died.


"I can't be for certain," he said. "There's a few that I don't think probably made it. They were pretty limp when we were pulling them out of the truck, but they still had a pulse, so I'm hoping for the best."

- Received 200 patients from the music festival
- Majority of patients arrive via private autos
- ED census reaches 228 by 02:47
- 124 Gun Shot Wounds (GSW)
- 92 patients have no identification
- 5 major surgeries within the first hour and a half
- 58 surgeries in the first 24 hours
- 20 ORs operating simultaneously
- 516 Blood products administered




Sunrise Hospital
Medical Center

- Received 60 patients from the scene
- Received 44 patients as interfacility transfers
- 4 patient mortalities
- 12 critical trauma
- 20 surgeries in first 24 hours
- 70 units of blood used
- 60 patients admitted
- 44 patients treated and released




University Medical Center (UMC)

- 239 bed community (non-trauma center) hospital
- Mapping apps, showed Desert Springs as the closest hospital to the concert
- First patients began arriving while the shooter was still active, and before any "city-wide" alerts
- 58 critical patients
- "We ran out of everything"
- Upwards of 25-30 patients treated and released without creating a health record



Desert Springs Hospital

- Community (non-trauma) Hospital
- Received first shooting patient before shooting stops
- 50 patients received, predominately via private auto
- 3 mortalities
- "Today we are the trauma center"



Spring Valley Hospital Medical Center

Observations



Observations that require planning considerations

The BIGGIES...

- Electronic Health Records
- HIPAA
- Communications
- Surge Plans vs Throughput
- Non-Traditional Patient Transportation
- Mental Health
- Mutual Aid Agreements

More than 40 additional considerations identified...so far

Electronic Health Records –

"Charting? Forget about it!"

- Patient registration too slow
- Too many mandatory screens or required fields to fill-in
- Unable to group patients by event
- Some systems don't assign trauma alias'
- Difficult to enter data retrospectively
- Some systems don't run reports until the following day



HIPAA –
 "PHI trumps FBI all day, everyday"


Lots of confusion related to what is Protected Health Information (PHI) and what is not

Exemptions related to emergencies, terrorism and/or declared disasters

Law enforcement organizations (LEO) do not fall under HIPAA

No community standard

No predefined essential elements of information that LEO needs during an event



Communications –
 "Internal and External, It's all problematic"

Internal Communications

Not enough radios, wrong type of radio, who was supposed to charge these damn radios?


Phone trees – not prioritized by incident type. Too heavily focused on providers (needed EVS, Radiology, Surgery Techs, etc..)

VoIP crashed due to numbers of incoming and out-going calls. Not enough physical phones or people to answer them

Cell phones used universally. Large "dead spots" within hospitals with no service

Radio applications, downloaded on cell phones worked with Wi-Fi connection and talk groups could be established

No common lexicon



Communications –
 External

<p>Families</p> <p>Manage expectations. Define the schedule for family briefings and stick to it</p> <p>Communicate with families via social media if appropriate. Frequent tweets such as "200 patients treated so far, injuries range from twisted ankle to severe trauma" made families feel like they weren't forgotten</p> <p>Equipment</p> <p>Families, employees and LEO will need phone chargers and access to outlets.</p> <p>Need to be able to segregate phone lines to be out-going numbers only, or you may never call out</p> <p>Protocol and Policy</p> <p>Identify numbers to call: if you have a foreign national as a patient, how to talk with the FBI and local PD, Coroner's Office, dignitaries, etc..</p> <p>Always get a call-back number first thing!</p>	<p>Press</p> <p>Social media addresses (to monitor) more valuable than press releases</p> <p>Have a designated PIO... team</p> <p>PIO team should provide accurate information, be the single point of contact for the press and should try and clear-up any misinformation on social media</p> <p>Off-Duty Staff Members</p> <p>Update the staff on the current situation at regular intervals</p> <p>Staff that was told not to come in, needs to understand why. Staff felt disgruntled and "left-out" if they weren't immediately called in</p> <p>Pre-Plan External Communications</p> <p>Before the event, determine who gets what information and how. Common hospital complaint was that too many organizations were calling or demanding the same information</p>
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Surge Plans –

“Bed availability means nothing”

Throughput, Throughput, Throughput

It's not how many inpatients you can handle that matters during the initial crisis...it's how many people can you stabilize that saves lives.

- Critical patients to surgery
- Treat and street as fast as you can
- Re-evaluate everyone who is currently admitted
- Transport minor or moderate injuries to more remote facilities





Lessons Learned

THROUGHPUT is what saves lives.

All efforts should be focused on getting patients quickly through the ED and into one of four dispositions:

1. Surgery
2. Admitted
3. “Treat and Street”
4. Transferred

ED is primarily for airway, stabilization and vascular access.

1 THROUGHPUT

Managing patient flow is much more important than being able to “surge” by some percentage of beds

<p>The majority of critical patients arrived via private auto or Uber. Unloading patients from pick-up trucks and autos is very labor intensive</p> <p>Plans need to incorporate the very real possibility that no triage, first-aid or paramedic advanced level treatments will have been completed prior to arrival</p> <p>Likewise, hospital plans must incorporate interfacility transfer plans for instances when NO EMS units are available</p>	<p># 2 Non-Traditional Transportation Methods</p> <p>Hospitals are physically designed, and patient workflow is based on the assumption critical trauma patients will arrive via ambulance</p>
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<p>Examples:</p> <ul style="list-style-type: none"> • Crosstrain HR personnel to perform case management or patient registration functions • Develop plans that can be instituted based on "mid-night" staffing levels and Sunday afternoon PAR levels • Conduct full-scale exercises on swing and graveyard shifts to build plan familiarity • Develop abbreviated patient registration and charting for large scale events • Modify master mutual aid agreements (MMAA) so that lower-level employees can activate • Train and exercise HICS/EOC activation using only night shift personnel • Standardize processes (IT downtime charting may be the same process for MCIs, etc.) • Emergency credentialing and disaster declarations 	<p># 3 Time is the enemy</p> <p>All plans, procedures and exercises, should to be refined to streamline <u>every</u> process.</p>
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<p>Training courses should be developed for the "Immediate Responder"</p> <p>These classes should focus on "stop the bleed", triage and airway management when the only available equipment and supplies you have is what you are wearing</p> <p>Lots of patients arrived with tourniquets. All were makeshift using shirts and belts. Few were effective.</p>	<p># 4 Immediate Responder Training</p> <p>Immediate responders (lay persons, off-duty first responders and off-duty medical staff) need training specific to MCI management using only on hand supplies</p>
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Terminology confusion can cause patient care delays or incorrect hospital destination decisions

Use of "codes" ineffective during MCI situation when multiple plans are being activated.

Imagine the overhead page for this MCI, with fear of additional shooter(s) on campus..


"Attention Code Triage, Multiple Code Blues in the ED, Code Silver, EM Team to EOC #1"

5 Common Lexicons

Clear text and common terminology will help eliminate confusion and help avoid misunderstandings

1. Nevada Hospital Association (NHA) is publishing a comprehensive report based on all available: After Action Reports, Police Reports, Interviews, InfoXChange Conference and our own experiences.
2. The NHA will be conducting a workgroup to identify issues related to EHRs during (mega) MCIs and specifically EPIC. Patient registration, patient charting, revenue cycle and recovery phase management as well as the need for "canned" EEI reports will be explored.
3. The NHA will be conducting a listening session related to HIPAA, hospitals and the LEO interface. We are hoping to develop a list of EEIs that LEO could request without any HIPAA ramifications as well as define the process if specific patient information is required.
4. The NHA will be developing a communications guide and protocol manual to be used internally. The role of the association as a "Multi-Agency Coordination Group".
5. The NHA will be updating our Master Mutual Aid Agreement based on lessons learned during this and other incidents.

Next Steps



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Thank You
