Mass Violence/Active Shooter Incidents:
Hospital Triage, Intake, and Throughput

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ASPR TRACIE Tip Sheets: Mass Violence/Active Shooter Incidents

ASPR TRACIE has developed a series of tip sheets for hospitals and other healthcare facilities planning for no-notice incident response. Our traditional concepts and approaches have not kept pace with real-world incidents in the U.S. and other countries or the challenges the healthcare system faces in managing the resulting extraordinarily large number of casualties. The tip sheets are based on discussions ASPR NHPP and ASPR TRACIE had with healthcare personnel who were involved in the October 2017 mass shooting response in Las Vegas and supplemented with information from other recent no-notice incidents. While there is great variance in the scope and healthcare needs resulting from no-notice incidents, these tip sheets focus on some of the identified challenges.

Triage and Intake

Prepare for Non-Triaged Patients

- During a large-scale incident, emergency medical services (EMS) may not be able to assess, triage, and/or treat all of the casualties at the scene.
- The initial volume of patients may exceed the capacity of available responders and ambulances at the scene, leading to first aid and direct transport by civilians.
- Survivors may flee the incident scene and may not realize their injuries until they reach a safe location or may become injured while escaping. Transports may originate from multiple locations over an extended period of time rather than a single, coordinated incident scene.
- Asymmetric attacks may result in multiple scenes. Hospitals may be targets of a primary or secondary attack.

Patients arrived to Sunrise via 24 EMS transports and 188 private vehicle transports.

The Las Vegas incident scene expanded from 17.5 acres to 4 square miles as survivors fled the scene and began to call 911.

Conduct Initial Triage and Intake

- Security personnel should maintain clear vehicle entry points and monitor access to the emergency department (ED). Other entrances to the facility should be controlled. Ideally, law enforcement should be present to support hospital security at the entrance and to provide traffic control.
- Bring essential assets to the ground floor including carts, wheelchairs, personnel, and any designated disaster supplies. Pop the heads up on gurneys so patients are not placed backwards.
- Clear the ED – discharge, cohort existing ED patients requiring additional workup and transport admitted patients to units. Assure each area has a "team leader" appointed.
- Determine in advance which areas of your facility are appropriate for use as expanded ED space and the types of patients that may be accommodated in each of these areas (e.g., post-anesthesia care unit, pre-induction, intensive care unit, procedural areas).
- Appoint an experienced provider to do initial triage. Provide an assistant to tag or mark patients and others to move them to the appropriate area.
- Consider grouping arriving patients by the severity of their injuries.

- Consider bringing deceased patients brought in by loved ones back as expectant rather than black tagging them.
- As part of your planning, develop temporary signs or identify staff who can assist in wayfinding for these expanded spaces. This will reduce confusion among your own staff, your patients and their loved ones, and personnel who are unfamiliar with your facility if you elect to use volunteers or emergency privileging.

In Las Vegas, many patients attended the festival wearing their entrance wristbands and carrying only cell phones and small amounts of cash. The lack of identification cards in combination with varying levels of alcohol consumption on the final day of the event contributed to challenges in identifying and treating patients.

Review Your Trauma Alias Process for Patients Who Arrive Without Identification

- Expect that registration and use of electronic systems will not be fast enough to support a rapid influx of large numbers of patients.
- Ensure an adequate supply of paper triage tags and/or paper charts.
- Determine whether patients or accompanying loved ones are able to provide identifying and medical information; be prepared to capture this information for clinical and registration purposes.
- Practice assigning large numbers of trauma aliases to avoid duplication.
- Plan to back up your electronic registration systems in the event wireless networks are overwhelmed.

Stage Personnel and Resources to Manage Initial Treatment Needs

- Consider pairing a nurse with each patient until handoff to the operating room, intensive care unit, or floor. This enables capture of a paper medical record in the event electronic medical records cannot keep pace with the incident and assures that at least one provider knows the patient, and can monitor for changes in condition.
- Dedicate providers to each space to continually monitor and reevaluate patients and intervene as needed.
- Dedicate a respiratory therapist for intubation support in the ED. Consider pre-packaged disaster intubation or critical care supply packs for bedside use.
- Dedicate pharmacy personnel and resources in the ED to ensure adequate medication supplies. Automated medication dispensing stations may be unable to keep up with the volume of needed medications.
- Determine a coordinated process for integrating personnel as they arrive in response to requests for additional staffing.

Sunrise used more than 125 crash carts in the first 3 hours.

Throughput

Initiate Rapid Discharge of Existing Patients, As Appropriate

- Mobilize hospitalists and intensivists to do rounds and assess inpatient status for potential “surge discharge.”
- Identify a single location where discharged patients may wait (e.g., discharge lounge) while other arrangements are made if the incident delays their ability to leave your hospital.

There were 500 patients in Sunrise prior to the incident. They discharged 184 patients in 15 hours.

Establish a Process for Disaster Patient Flow

- Assure that surgery and ED staff (and potentially anesthesia if available) understand the initial locations of care for critical, moderate, and minor injury.
- Assure a process for triage to CT and to OR. This may involve tags, writing on patient/cart/paper, or simply verbal coordination in smaller departments. Staging areas for CT may be needed (e.g., line up in hallway).
- All critical or moderate patients not requiring immediate CT or OR should be assigned to an inpatient unit or surge area as rapidly as possible (including use of hallway beds). Staff should be available in these areas to re-triage and continue to treat.
- Assure that ED and surgery staff understand priorities for OR (e.g., unstable abdominal injuries first).

Partner with Hospital Incident Command to Expand Capacity

- Move non-incident patients to other areas of the hospital.
- Convert single bed units with two existing headwalls to double capacity.
- Cohort patients where possible.
- Pre-identify units, such as behavioral health, that will have more difficulty rapidly discharging patients.
- Coordinate with other area hospitals to distribute patients and balance loads.

Be Prepared for Existing ED Patients to Depart

- Existing (non-incident related) ED patients may leave on their own (or go to an alternate location), recognizing that large numbers of patients with more serious injuries may take precedence.
- While facility planners should not assume this will be the case for all incidents, they should prepare to handle patients who delay care until the following day.

Prepare to Provide Short-Term Assistance to Patients Who are Treated and Released

- Patients who reside in the area may not have someone immediately available to take them home.
- Patients who are visiting from other areas may not know where or have another place to go.
- Access to and from your facility and throughout the surrounding area may be challenged by perimeter controls and roadblocks.

> Sunrise allowed released patients to wait in the auditorium until other arrangements could be made. UMC arranged transportation to a designated pick-up location.

Related ASPR TRACIE Resources

Tip Sheets in This Series:

Community Response and Media Management
Emergency Medical Systems Considerations
Expanding Traditional Roles to Address Patient Surge
Family Assistance
Fatality Management
Non-Trauma Hospital Considerations
Trauma Surgery Adaptations and Lessons
Trauma System Considerations

Other Resources:

Healthcare Response to a No-Notice Incident: Las Vegas (Webinar)
Hospital Surge Capacity and Immediate Bed Availability Topic Collection
Active Shooter and Explosives Topic Collection
Incident Management Topic Collection
Pre-Hospital Topic Collection
The Exchange Issue 3: Preparing for and Responding to No-Notice Events
The Exchange Issue 7: Providing Care During Mass Violence Responses

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