SALT Triage

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What's Unique About A Mass Casualty Incident

- Number of patients
- Infrastructure limitations
  - Providers
  - Equipment
  - Transport capabilities
  - Hospital resources
- Scene hazards
  - Threats to providers
  - Decontamination issues
  - Secondary device
- Multiple agencies responding



What is Triage?

- French verb “trier” meaning “to sort”
- Assign priority when resources limited
  - Someone has to go last
- Greatest good for greatest number
- Bring order to chaos



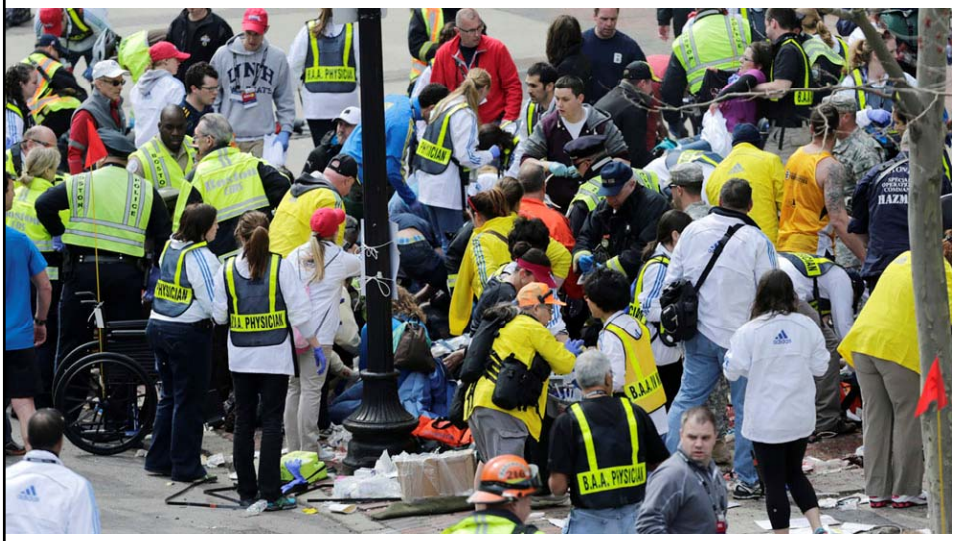
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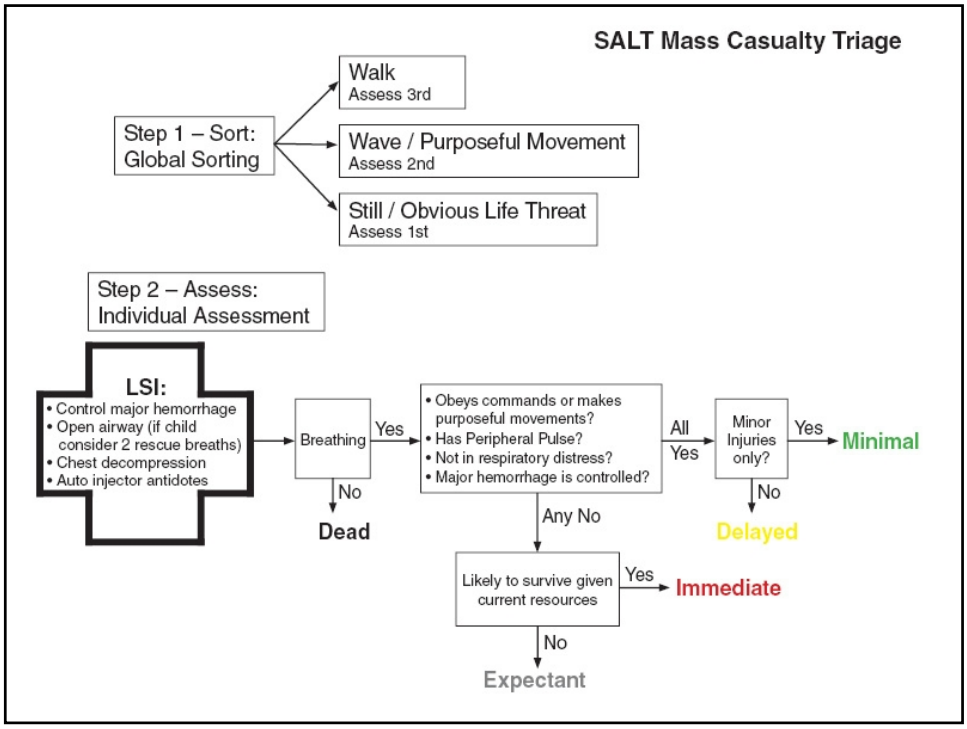


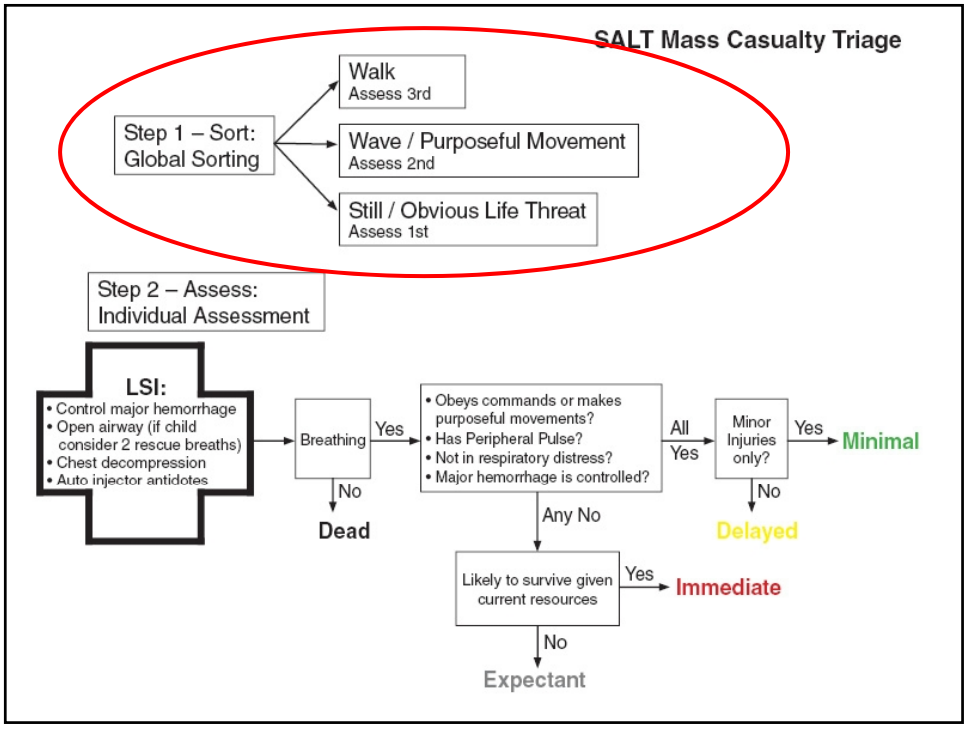




SALT Triage

- Simple
- Easy to remember
- All hazards and all types of patients
- Groups large numbers of patients together quickly
- Applies rapid life-saving interventions early


SALT Mass Casualty Triage
Step 1 – Sort:
Global Sorting
Walk
Assess 3rd
Wave / Purposeful Movement
Assess 2nd
Still / Obvious Life Threat
Assess 1st
Step 2 – Assess:
Individual Assessment
LSI:
• Control major hemorrhage
• Open airway (if child consider 2 rescue breaths)
• Chest decompression
• Auto injector antidotes
Breathing
Yes
No
Dead
• Obeys commands or makes purposeful movements?
• Has Peripheral Pulse?
• Not in respiratory distress?
• Major hemorrhage is controlled?
All Yes
Any No
Minor Injuries only?
Yes
No
Minimal
Delayed
Likely to survive given current resources
Yes
Immediate
No
Expectant


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Global Sorting: Action 1

- **Action:**
  - "Everyone who can hear me please move to [designated area] and we will help you"
    - Use loud speaker if available
- **Goal:**
  - Group ambulatory patients using voice commands
- **Result:**
  - Those who follow this command - last priority for individual assessment

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Global Sorting: Action 2

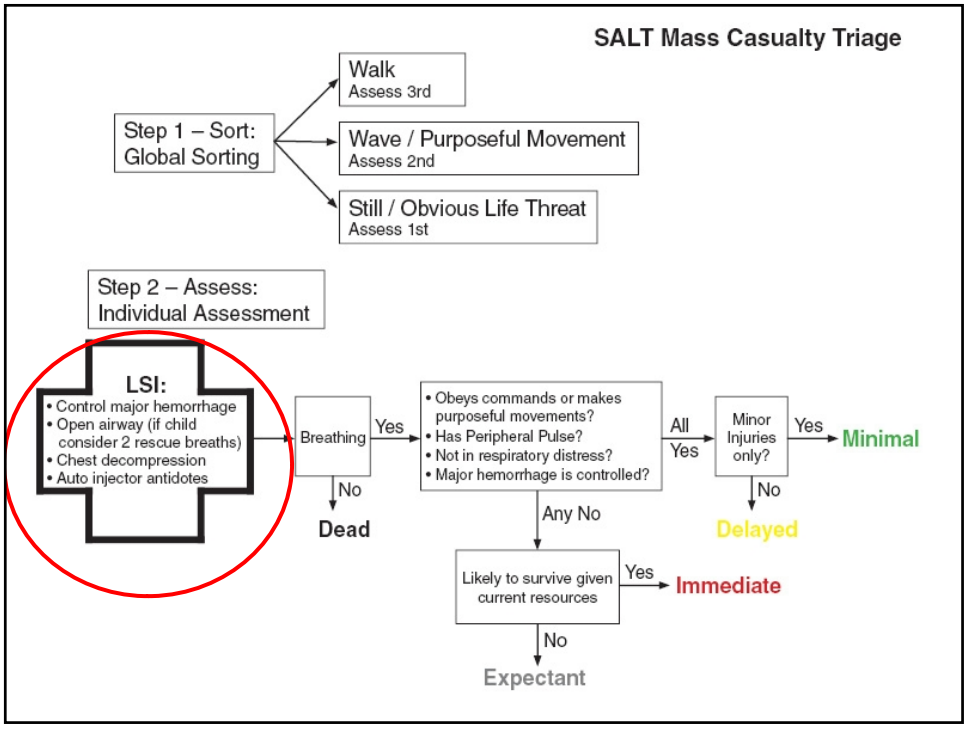
- **Action:**
  - "If you need help, wave your arm or move your leg and we will be there to help you in a few minutes"
- **Goal:**
  - Identify non-ambulatory patients who can follow commands or make purposeful movements
- **Result:**
  - Those who follow this command - second priority for individual assessment

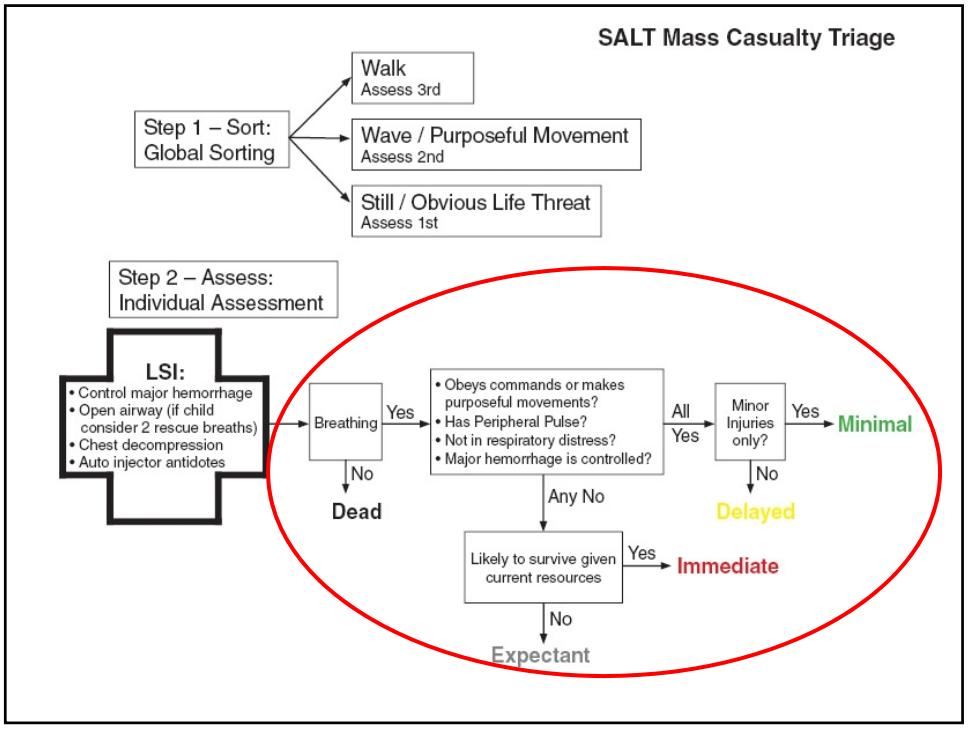
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Global Sorting Result

- Casualties are now prioritized for individual assessment
  - Priority 1: Still, and those with obvious life threat
  - Priority 2: Waving/purposeful movements
  - Priority 3: Walking

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Dead

- Patient is not breathing after opening airway
  - In Children, consider giving two rescue breaths
  - If still not breathing must tag as dead
- Tag dead patients to prevent re-triage
- Do not move
  - Except to obtain access to live patients
  - Avoid destruction of evidence
- If breathing conduct the next assessment

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Immediate

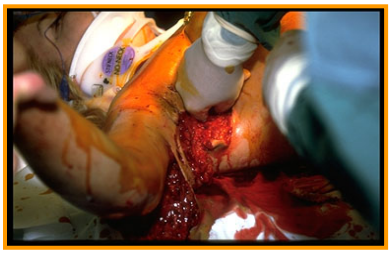


Photo Source: www.swsahs.nsw.gov.au Public Domain

- Serious injuries
- Immediately life threatening problems
- High potential for survival
- Examples
  - Tension pneumothorax
  - Exposure to nerve agent
    - Severe shortness of breath or seizures

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Immediate

- **No** to **any** of the following
  - **C:** Follows **commands** or makes purposeful movements?
  - **R:** Not in **respiratory** distress?
  - **A:** Hemorrhage is controlled? [controlled **arterial** bleeding]
  - **P:** Has a peripheral **pulse**?
- **Likely** to survive given available resources

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Expectant

- **No** to **any** of the following
  - **C:** Follows **commands** or makes purposeful movements?
  - **R:** Not in **respiratory** distress?
  - **A:** Hemorrhage is controlled? [Uncontrolled **arterial** bleeding]
  - **P:** Has a peripheral **pulse**?
- **Unlikely** to survive given available resources

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Expectant

- DOES NOT MEAN DEAD!
- Important for preservation of resources
  - Should receive comfort care or resuscitation when resources are available
- Serious injuries
  - Very poor survivability even with maximal care in hospital or pre-hospital setting
- Examples
  - 90% body surface area burn
  - Multiple trauma with exposed brain matter

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Delayed

- Serious injuries
  - Require care but management can be delayed without increasing morbidity or mortality
- Examples
  - Long bone fractures
  - 40% BSA exposure to Mustard gas



Photo Source: Phillip L. Coule, MD

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Delayed

- **Yes** to **all** of the following
  - **C:** Follows **commands** or makes purposeful movements?
  - **R:** Not in **respiratory** distress?
  - **A:** Hemorrhage is controlled? [Uncontrolled **arterial** bleeding]
  - **P:** Has a peripheral **pulse**?
- Injuries are **not** Minor and require care

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Minimal

- **Yes** to **all** of the following
  - **C:** Follows **commands** or makes purposeful movements?
  - **R:** Not in **respiratory** distress?
  - **A:** Hemorrhage is controlled? [Uncontrolled **arterial** bleeding]
  - **P:** Has a peripheral **pulse**?
- Injuries **are** Minor

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Minimal

- Injuries require minor care or no care
- Examples
  - Abrasions
  - Minor lacerations
  - Nerve agent exposure with mild runny nose



Photo source: Phillip L. Coule, MD

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Identifying Patient Status

- Marker on casualty
- Commercial Casualty tags
- Geographic



After Patients are Categorized

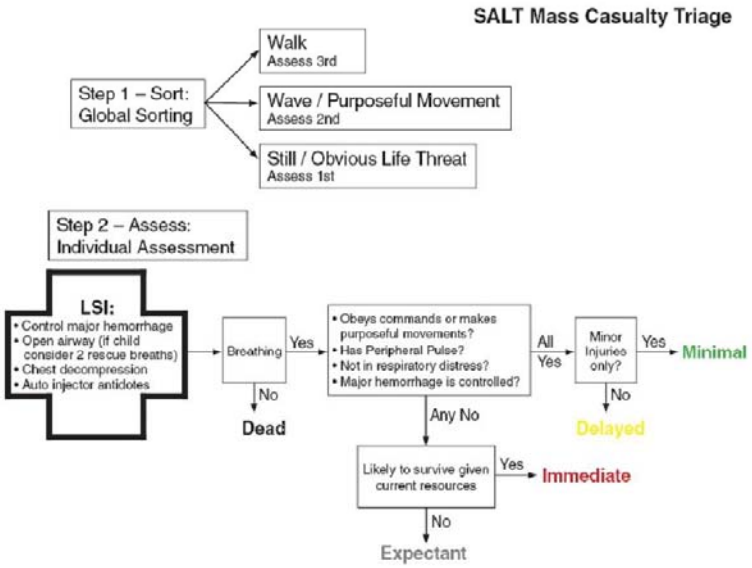
- Prioritization process is dynamic
  - Patient conditions change
  - Correct misses
  - Resources change

Summary

- SALT Triage
  - Global Sort
  - Individual Assessment
    - Life Saving interventions
    - Assign Category

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Questions?



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Case Study

- Multiple GSW at Local Sporting Event
  - You and partner respond (one ambulance)
  - 8 casualties
  - The scene is safe and additional assistance has been requested
  - What do you do first:

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Initial Sorting of Patients

- Walk
  - 2 patients
- Wave
  - 3 patients
- Still
  - 3 patients

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Still

- 29 yr male — **Immediate**
  - GSW left chest, radial pulse present, severe respiratory distress
- 8 yr female — **Expectant**
  - GSW head (through and through), visible brain matter, respiratory rate of 4, radial pulse present
- 50 yr male — **Dead**
  - GSW to abdomen, chest, and extremity, no movement or breathing

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Waving

- 14 year male — **DELAYED****
  - GSW right upper extremity, active massive hemorrhage, good pulses
- 65 year male — **IMMEDIATE**
  - severe chest pain, diaphoretic, obvious respiratory distress, no obvious GSW
- 22 year female — **DELAYED**
  - GSW right lower extremity, good pulses, no active bleeding, obvious deformity

**after tourniquet

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Walked

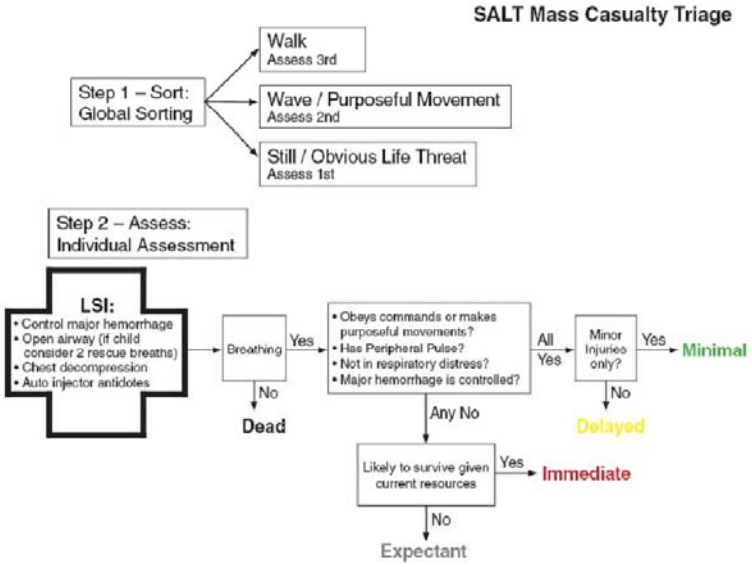
- 29 yr male **Minimal**
  - Superficial GSW in the skin of left upper extremity
- 37 yr male **Delayed**
  - GSW left hand. Exposed muscle, tendon and bone fragments, peripheral pulse present,

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What next?

- Another ambulance arrives and transports 2 of your immediate patients
- Your partner is providing care to the other immediate patient
  - What do you do next?
    - Re-assess

Questions?



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