Traditional Triage on Trial: Reality-Testing with Current Paradigms for MCIs

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Triage in MCI
Sometime easy
Sometime

Hard

\[ S = r \cdot \theta \]

where the angle \( \theta \) must be measured in radians.
How do we make Triage for High Treat MCI, easier for providers and better for Patients?
Traditional Civilian MCI Triage Models

- Too Complicated
- Unrealistic
- Scene confusion
- Inaccurate triage
START Adult Triage

Able to walk?
  Yes → MINOR
  No → SECONDARY TRIAGE

Spontaneous breathing?
  No → Position airway
  Spontaneous breathing → IMMEDIATE

Respiratory Rate
  >30 → IMMEDIATE
  <30 → Perfusion

Perfusion
  Radial pulse absent or capillary refill > 2 sec → IMMEDIATE
  Radial pulse present or capillary refill < 2 sec → Mental status

Mental status
  Doesn’t obey commands → IMMEDIATE
  Obey commands → DELAYED

Triage Categories

EXPECTANT
- Black Triage Tag Color
- Victim unlikely to survive given severity of injuries, level of available care, or both
- Palliative care and pain relief should be provided

IMMEDIATE
- Red Triage Tag Color
- Victim can be helped by immediate intervention and transport
- Requires medical attention within minutes for survival (up to 60)
- Includes compromises to patient's Airway, Breathing, Circulation

DELAYED
- Yellow Triage Tag Color
- Victim's transport can be delayed
- Includes serious and potentially life-threatening injuries, but status not expected to deteriorate significantly over several hours

MINOR
- Green Triage Tag Color
- Victim with relatively minor injuries
- Status unlikely to deteriorate over days
- May be able to assist in own care: “Walking Wounded”
SALT
Global Sorting
Critical Thinking
No Treatment

Step 1: Sort: Global Sorting
- Walk Assess 3rd
- Wave / Purposeful Movement Assess 2nd
- Still / Obvious Life Threat Assess 1st

Step 2 - Assess: Individual Assessment

Lifesaving Interventions:
- Control major hemorrhage
- Open airway (if child consider 2 rescue breaths)
- Chest decompression
- Auto injector antidotes

Breathing?
- No → Dead
- Yes

- Obeys commands or makes purposeful movements?
- Has peripheral pulse?
- Not in respiratory distress?
- Major hemorrhage is controlled?

All Yes → Immediate

Minor injuries only?
- Yes
- No → Expectant

Likely to survive given current resources?
- Yes
- No

Expectant

Immediate

Minimal

Delayed

Efficacy of Traditional EMS Triage

- Virginia Tech Shooting
  - 69% over-triage rate

- Fort Hood Massacre
  - Nearly 70% inappropriately triaged
  - Directly led to misuse of resources
    - Increased fatality rate

SIMPLY DOESN’T WORK IN REAL LIFE
EMS responses are not optimally aligned to maximize victim survival
Why is EMS Triage so Inaccurate?

• “Physiology of Fear” in Responders
  • Sympathetic response
  • Loss of critical thinking
  • Loss of fine motor skills

• “Physiology of Fear” in Patients
  • False assumptions of human behavior

• Overly-complicated triage algorithms
  • START
  • SALT
MCI Drills
Boston Marathon Bombing
Las Vegas Concert Shooting
Florida School Shooting
RAMP Triage Model
(Rapid Assessment of Mentation & Pulse)

Casualty without signs of obvious death

Casualty follows commands?

Yes

Radial pulse present?

Yes

ALIVE

Urgent

Urgent

Delayed

Yes

No

Radial pulse present?

Yes

No

DEAD

Expectant/Deceased

Perform Life Saving Interventions
• GCS directly correlates with hospital discharge in trauma
  • But we are terrible at scoring GCS

• Following basic commands as substitute for GCS
  • Best overall indicator of survival from trauma

• No radial pulse and not following commands
  • 92% mortality rate

• Yellow category most inaccurate by EMS
Benefits of RAMP

- Ease of use
- Easily taught
- No reliance on numbers or critical thinking
- Easily remembered
- Uses scientific evidence
- Easily implemented
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It is difficult to make things easy but it's also easy to make things difficult.