

ESI 5 LEVEL TRIAGE

A bit of history

Triage

- French word: means “to sort”
- Concept used on the battlefields to establish treatment priorities..

RED

YELLOW

GREEN

BLACK

.....Until 2000

* **Triage** consisted of Green, yellow, red

Problem? No way to tell if the “system”
(nationwide) was working -no inter-rater
reliability

With increased volumes/overcrowding
more chance for “*badness*” happening

Overcrowding in the ED

In June 2002, the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) released a Sentinel Event Alert (JCAHO, 2002). JCAHO identified emergency departments as the source for more than half the reported sentinel event cases of patient death or permanent disability due to delays in treatment. In 31 percent of the cases, overcrowding was identified as a contributing factor

We needed a better system

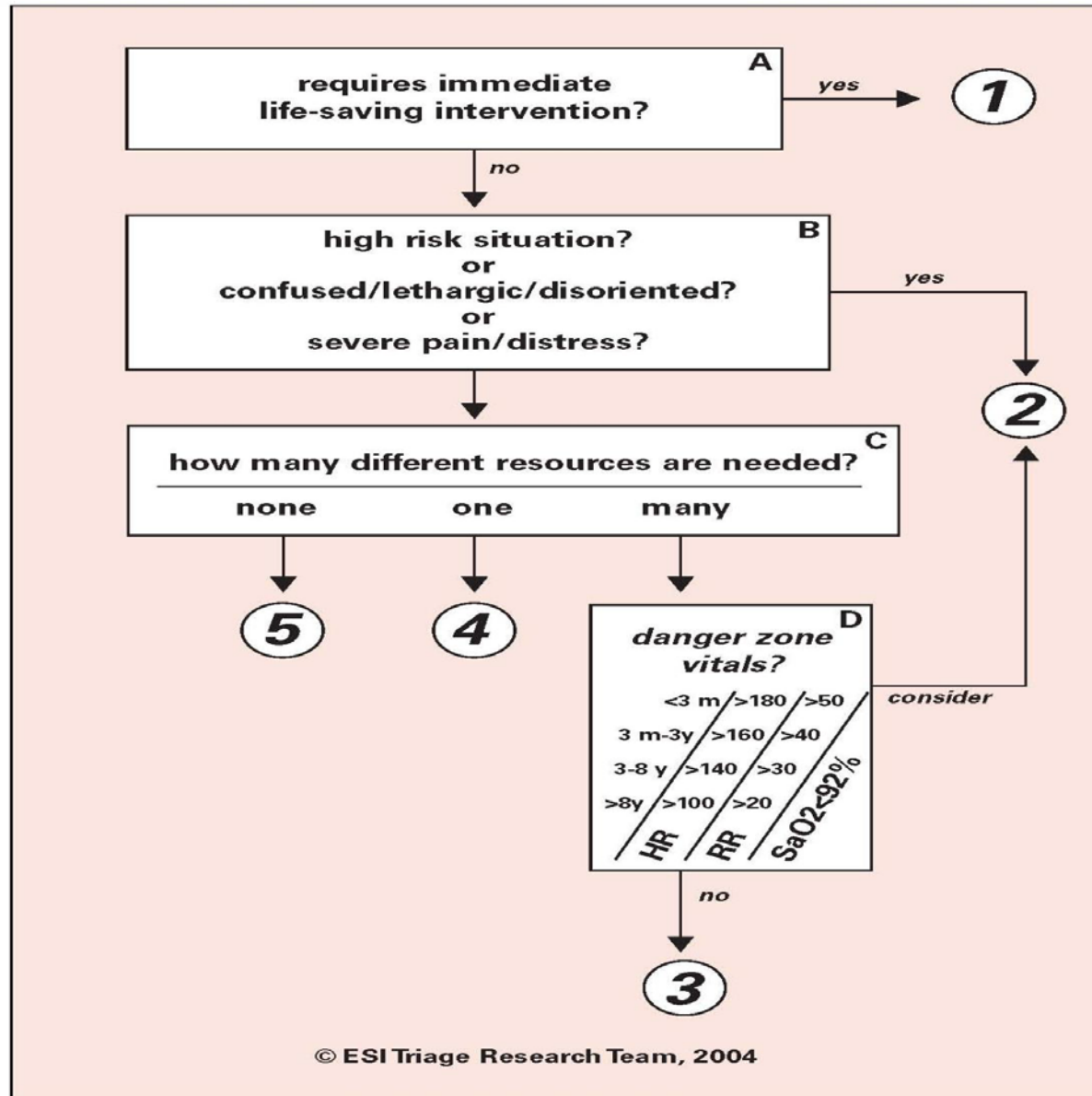
2000 –Richard Wuerz et al

- **ESI: Emergency Severity index scoring system: triage according to resource utilization**
- Developed out of the increased overcrowding of ED' s across the country

Accurate Triage: why is it so important?

- The old system the question was , “who needs to be seen first ?”
- In the 5 level system the question becomes, “who can wait the longest?”

Appendix B. ESI Triage Algorithm, v.4



A: Immediate Intervention

- Airway, ER meds, hemodynamic interventions:
- intubated, apneic, pulseless, severe resp distress
- SPO₂<90, MS changes, unresponsive
- *This is the patient that everyone “drops what they are doing for”*

B: High Risk Situation

- Confused, lethargic, disoriented?
- Severe pain/ distress?
- Elopement risk?

- “*would I use my last bed for this patient?*”

C: How many resources?

- Zero?-level 5
- One? -level 4

What are “Resources”?

- Labs, ekg/xrays, CT/MRI/ultrasound/angio
- IVFs
- IV, IM, or nebulized medications
- Consults
- Procedures

Simple= 1 resource

Complex= 2 resource

More than 1 resource needed?

- What are the vital signs?
- Danger zone?
 - *If yes-consider making them a “level 2 patient”*

Special consideration populations

- Pediatric population
- Geriatric population

Pediatric Considerations:

- 1 to 28 days with temp >100.4 (38)-level 2
- 1 to 3 months with temp >100.4 (38)-consider level 2
- 3 months to 3 years with temp >102.2 (39) consider level 3 if incomplete immunizations and no obvious fever source

Recognizing sick kids at triage

- Fevers in patients 3 months to 3 years old
 - Fevers over 102.2 with no obvious source of infection will require a more extensive work up
 - For example:
 - 6 mo old M c/o 103.0 fever
 - no runny nose, ear pain, cough
 - **Pediatric Rashes with fever**
 - **Visualize as much of the child as possible at triage**
 - Non-blanching petechial/purpura rashes? Red flag

Geriatric population

- Highest ratio of ED visits is by people over the age of 75
- Few EDs are well equipped to deal with geriatric population specific needs

Why are falls in the elderly so concerning?

- **Trauma in the elderly is not the same as trauma in younger adults.**
 - Significant morbidity and mortality may result from falls in older individuals.
 - They fall more easily
 - They fracture and bleed more easily
 - Delayed recovery
 - They compensate less
 - Poly-pharmacy may affect their vital signs (compensation may not be reflected in their vital signs)

Elderly patients often have co-morbid conditions that require closer attention, more intensive care and often multiple resources to treat (making them a higher resource need-A3/A2)

■ **Risk Factors**

- *Past history of a fall*
- *Lower extremity weakness*
- *Age*
- *Cognitive impairment*
- *Balance problems*
- *Psychotropic drug use*
- *Arthritis*
- *History of stroke*
- *Orthostatic hypotension*
- *Dizziness*
- *Anemia*

Head trauma in the Elderly

- Many elderly patients are on blood thinners
- The risk for intracranial hemorrhage is even higher at 85 years of age or older

Take home points with trauma in the elderly

- **Always fully undress the patient to evaluate!**
 - Inspect the patient
 - *“roll the patient over and take the knife out of their back”*
- **Road test patient prior to discharge**
 - Re-consider diagnosis if they cannot walk
 - Possible admission
- **Elderly with trauma who return to the ED for the same complaint should raise your suspicion that something was missed**
 - Increase acuity level

I have this pressure in my chest that started about an hour ago. I was shoveling wet snow and I may have overdone it," reports an obese 52 y.o. man. He tells you his pain is 10/10 and that he is nauseated and SOB. His skin is cool and clammy. VS: BP 86/50, HR 52/irregular.

What Level?

Why?

Level 1. This patient is probably having an AMI. He is symptomatic and unstable. He needs life-saving interventions including immediate IV access, medications, and external pacing pads applied.

“I think he has another ear infection” the mother of an otherwise 2 year old tells you. “he’s pulling on his right ear.” The child has a tympanic temp of 100.2 F and is trying to grab at your stethoscope. He has a history of frequent ear infections and is currently taking no medications. He has a normal appetite and urine output according to his mother.

What level?

Why?

Level 4/5. Because he is not ill appearing, has a history of ear infections and VS are within normal limits. Will have a physical and *maybe* a prescription (not considered a resource).

An 88 y/o female is brought to the ED by EMS. This morning she had an episode of slurred speech and left arm weakness that lasted about 45 minutes. She has a history of a previous stroke and she takes an ASA every day. She is now alert and oriented with clear speech and equal hand grasps . Family member states, “she ‘s still not back to normal: not behaving normally”

VS: T 98 : PR 76 : BP 180/90

What level?

Why?

Level 2. The patient's history indicated she may have had a TIA earlier. She is a high risk patient and should not be left to wait in the waiting room if possible

A 76 year old male is brought to the ED because of severe abdominal pain. He tells you “it feels like someone is ripping me apart”. The pain began about 30 minutes prior to admission and he rates the intensity as 20/10. He has hypertension for which he takes a diuretic. No allergies. The patient is sitting in a wheelchair moaning in pain. His skin is cool and diaphoretic. VS: HR 122, BP 88/68, RR 24, SpO2 94%

What level?

Why?

Level 1. Several reasons: 1. Hypotension, tachycardic and decreased peripheral perfusion (skin pale, cool, clammy). What life threatening conditions *could* he be describing? (Aortic dissection). Finally-he needs immediate IV access/fluid resuscitation.

My baby had a fever of 102 rectally about an hour ago in my pediatrician's office- he told me to come here," reports the mother of a 3 week old. The baby is wrapped up in blankets and is hot to touch. Mom notes "he's just not nursing all that well".



Systemic and non-blanching

■ What level?

■ Why?

Concerning Pediatric rashes

■ Non-blanching rashes are concerning

– Especially if accompanied by fever, lethargy (“looks sick”)

■ Think about :

– Meningitis, Stevens Johnson Syndrome, Toxic epidermal necrolysis, HSP, Kawasaki’s disease

- A 16 year old male wearing a swimsuit walks into the ED. He explains that he dove into a pool and his face struck the bottom. You notice an abrasion on his forehead and nose as he tells you that he needs to see a doctor because of the tingling in both hands
- What level?
- Why?

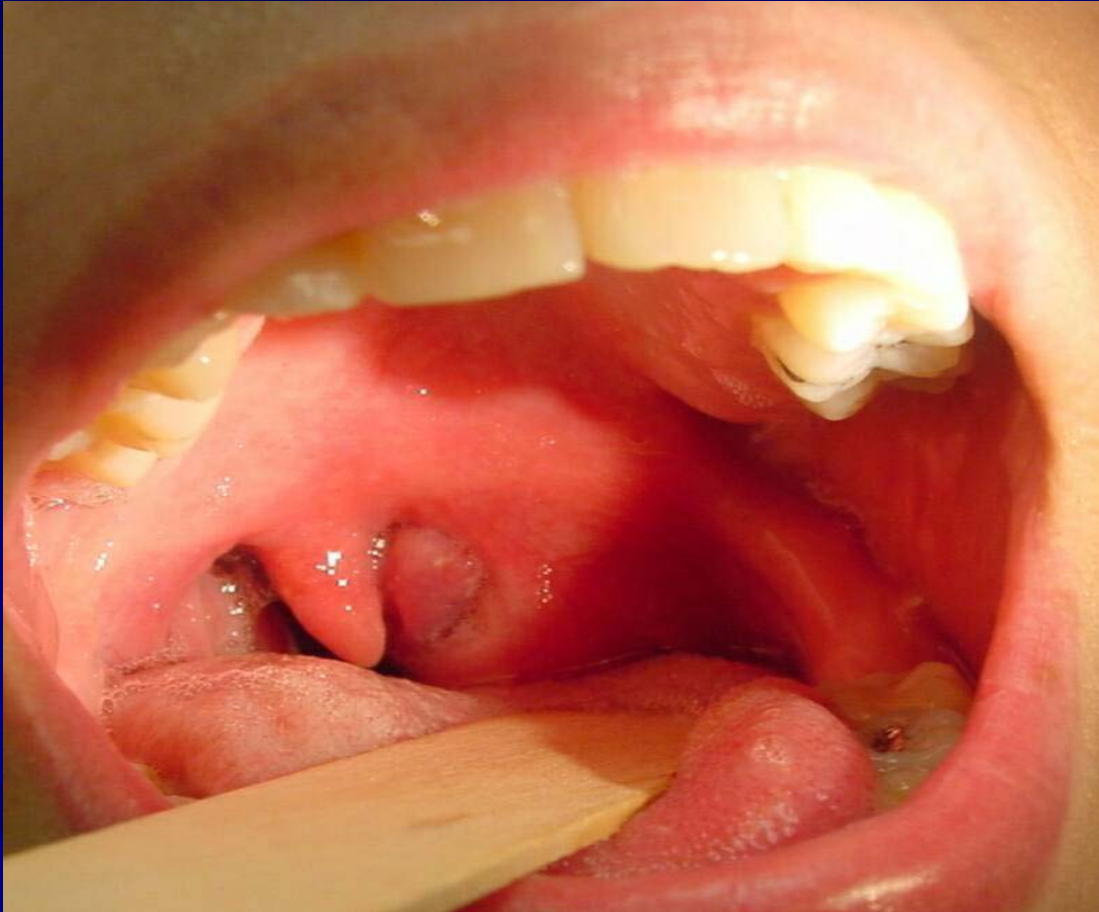
Level 2. Because of his mechanism of injury-he has a c/spine injury until proven otherwise: immediate actions? C-collar at triage and brought directly back-(should not sit this one down in the waiting room!) however he *does not* require immediate intervention to prevent death (he is breathing, talking, able to walk, etc).

- 29 y/o female presents to the ED with a history of sore throat +fever for the last 6 days. Complains of pain with swallowing.
- Unable to swallow tylenol. “I just feel wiped out” : voice muffled voice at triage: Drooling. VS: T-102.8 R-18 PR 120 BP 106/64
- What level?
- Why?

Peri-tonsillar Abscess

- Presenting symptoms:
 - Hot potato voice
 - Usually accompanied by fevers/tachycardia.
 - May have difficulty swallowing secretions
 - Increase level of acuity (A3), unless airway compromise (A2)
- Why worry?

Potential airway issue!



- 36 y/o construction worker who presents to the ED ambulatory with chief complaint, 'I was at the job and was dumping concrete powder in a bucket and the powder flew up and got in to both of my eyes: patient reports he was NOT wearing goggles/glasses: Complains of much burning/pain to both eyes : +blurred vision
- What level?
- Why?

■ LEVEL 2

■ Alkali burn to OU

Chemical Burn

- **A TRUE OCULAR EMERGENCY (A2)** : Time sensitive (“time is cornea”!) IRRIGATE, IRRIGATE, IRRIGATE
 - Copious using IV NS or LR’s with morgan’s lens (titrate to PH)
 - Morgans lens alternatives
 - Use the tubing and tape over pt’s eye.
- **Acid vs Alkali**
 - **Alkali causes necrosis.** Will destroy vessels and denature collagen (Lipophilic- so it absorbs into the eye more easily, causing more damage)
 - **After 15 minutes of chemical to eye damage may be irreversible**
 - i.e household cleaners (bleach), fertilizers, concrete mixture
 - Acid also cause a necrosis. Less common
 - i.e sulfuric acid (automobile batteries), industrial cleaners