Who’s sick and who’s not?

ESI IN TRIAGE

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I HAVE NO DISCLOSURES

ESI

- Emergency Severity Index
- A triage tool for Emergency Departments
- Five Levels
- Clinically relevant rating of patients from least to most urgent
- Based on acuity and resources needed

Purpose

- Prioritize incoming patients
- Identify patients who cannot wait to be seen
- Undertraige = patients at risk for deterioration while waiting
- Overtriage = using valuable resources on the wrong patients

History of ESI

- Developed by ED MD's (hmmmm?!)
- Used questions-
  - "Who should be seen first?"
  - "How long can each patient safely wait?"
  - "What/how many resources will they need?"

Goal of ESI

- Rapid sorting into 5 groups
- Improved flow of patients through the ED
- Determine which patients need to be seen in main ED and which one's can be sent to "fast-track" or "urgent care" area
- Which patients can wait in the waiting room safely if no rooms available

Overview of ESI

- 5 level algorithm based on
  - Patient acuity
  - Resources needed to care for the patient

Overview con’t

- Are they high acuity (ESI 1 or 2)?
  - Determined by:
    - stability of vital functions
    - potential threat to life, limb or organ
- If not, how many resources will they need?
  - Lab
  - IV
  - Meds
  - Radiology

ESI Decision Process

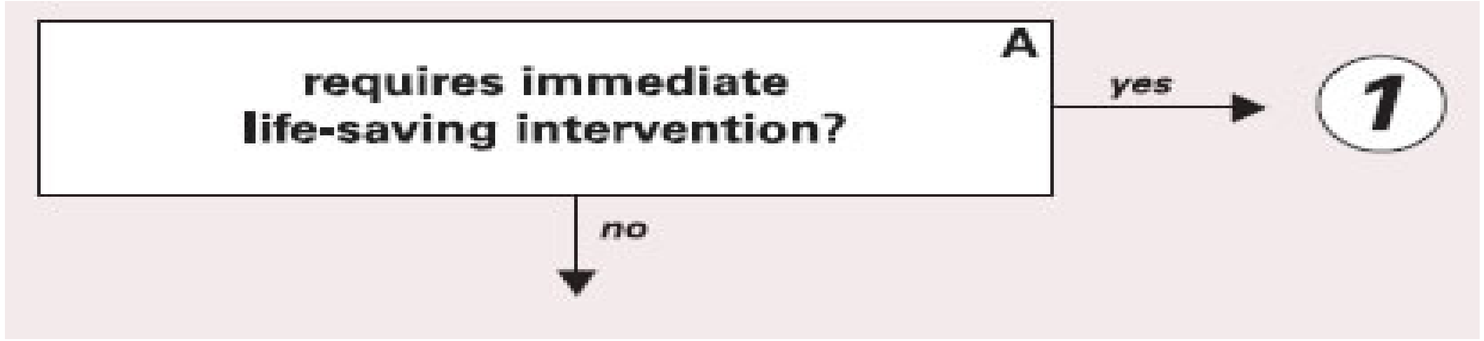
- Requires an experienced ED nurse
- Decision points:
  - A. Does this patient require immediate life-saving intervention?
  - B. Is this a patient who should wait?
  - C. How many resources will this patient need?
  - D. What are the patient's vital signs?

Decision Point A

- Does the patient require immediate life-saving intervention?
  - Is their airway patent?
  - Are they breathing?
  - Do they have a pulse?
  - Is their pulse adequate?
  - Were they intubated pre hospital?
  - Can they maintain oxygenation?
  - Do they need meds to support their hemodynamic stability or volume replacement?
  - Are they: apneic, pulseless, severe resp distress, SpO2 < 90, AMS change, unresponsive?

Decision Point A (con't)

- If you answered YES to any previous questions this patient is a ESI 1 and needs to be taken to a room immediately with RN and MD at bedside immediately
- ESI 1 require immediate physician intervention



	Life-saving	Not life-saving
Airway/breathing	•BVM ventilation. •Intubation. •Surgical airway. •Emergent CPAP. •Emergent BiPAP.	•Oxygen administration: Nasal cannula. •Non-rebreather.
Electrical Therapy	•Defibrillation. •Emergent cardioversion. •External pacing.	Cardiac Monitor
Procedures	•Chest needle decompression. •Pericardiocentesis. •Open thoracotomy. •Intraoseous access.	•Diagnostic Tests: ECG. •Labs. •Ultrasound. •FAST (Focused abdominal scan for trauma).
Hemodynamics	•Significant IV fluid resuscitation. •Blood administration. •Control of major bleeding.	•IV access. •Saline lock for medications.
Medications	•Naloxone. •D50. •Dopamine. •Atropine. •Adenocard.	•ASA. •IV nitroglycerin. •Antibiotics. •Heparin. •Pain medications. •Respiratory treatments with beta agonists

Decision Point A (con't)

- Not all ESI 1 patients come by ambulance
  - Drug OD
  - Infant/child carried in "because it was faster to drive"
  - If your across the room assessment gives you goosebumps and puts a knot in your stomach better safe than sorry-ESI 1(you can always downgrade!)

Examples of ESI 1

- Cardiac Arrest
- Respiratory Arrest
- Severe Respiratory Distress
- Level 1 Trauma
- OD with GCS < 8
- Severe bradycardia/tachycardia
- Hypotension/hypoperfusion
- STEMI
- Anaphylactic shock
- Baby who is flaccid
- Hypoglycemia with AMS
- Unresponsive Child

Decision Point B

- Should the patient wait?
  - If you as the nurse believe this patient should not wait to be seen – ESI 2
  - If the patient can wait- move to decision point C

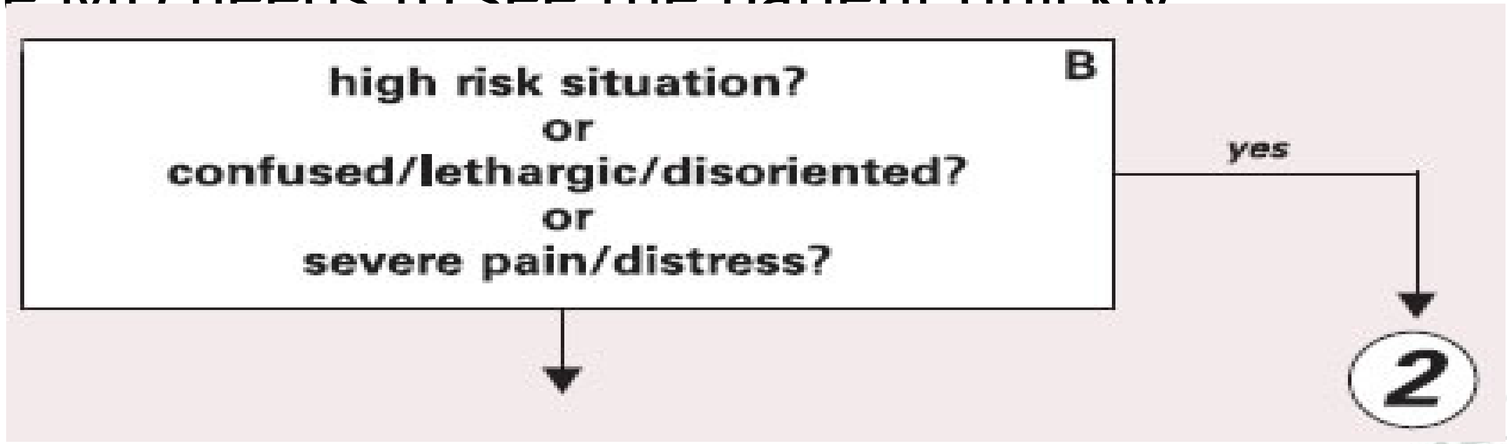
Decision Point B (con't)

- Questions to think about in Decision Point B
  - Is this a high risk patient?
    - The "sixth sense" that something is wrong-**trust your instinct**
    - Is their medical history significant?
    - Could their condition deteriorate quickly?
    - The clinical portrait
      - "worst headache of my life"
      - "severe pain between my shoulder blades radiating to my chest"
  - Does this patient have a change in mental status?
    - New onset in elderly patient
    - Lethargic infant/child
    - Teenager "not acting right"
  - Are they in severe pain or distress?
    - Pain level 7/10 or higher? Consider ESI 2
    - Where is the pain and how does the patient appear?
      - Abdominal pain, diaphoretic, pain rate 7/10 – ESI 2
      - Twisted ankle, no swelling, pain rate 8/10 – move to Decision Point C

Decision Point B (con't)

- If you determine the patient to be an ESI 2 the patient should be taken to a room immediately and the RN should initiate protocols to care for the patient and notify the MD of the patient status

- ESI 2 the MD needs to see the patient quickly



Examples of ESI 2

- Chest pain (suspicious of ACS)
- Signs of stroke
- Rule out ectopic pregnancy
- Immunocompromised patient with a fever
- Suicidal/homicidal patient

ESI 2

- Approximately 20-30% of ED patients
- 50-60% of ESI 2 patients get admitted to the hospital

Decision Point C

- What resources will they need?
  - In other words, what is typically done for patients presenting to the ED with this chief complaint?
  - This is why it is important for the triage nurse to have adequate experience in the ED setting
  - Resources are: hospital services, procedures, consults, interventions above and beyond the MD getting an H & P

Decision Point C (con't)

Resources	Not Resources
Labs (blood, urine)	H & P
ECG, X rays, Ct, MRI, US	Point of care testing (Glub and Urine Hcg)
IV fluids (hydration)	Saline Lock
IV, IM or nebulized meds	PO meds, Tdap, prescription refills
Specialty consult	Phone call to PCP
Simple procedure= laceration repair, foley	Simple wound check (recheck, dressing)
Complex procedure=moderate sedation	Crutches, sling

Decision Point C (con't)

- ESI 3-predicted to require 2 or more resources
  - 30-40% of ED patients
  - Present with a chief complaint that requires evaluation (i.e. abd pain)
- ESI 4- predicted to require 1 resource
- ESI 5- predicted to require no resources

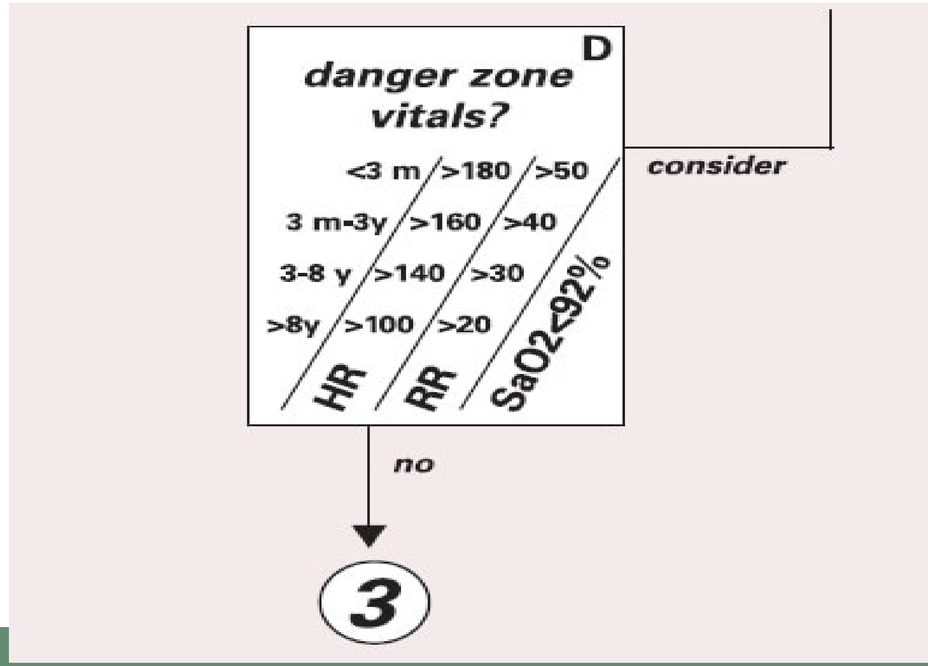
ESI Level	Patient Presentation	Interventions	Resources
5	Healthy 10-year-old child with poison ivy	Needs an exam and prescription	None
5	Healthy 52-year-old male ran out of blood pressure medication yesterday; BP 150/92	Needs an exam and prescription	None
4	Healthy 19-year-old with sore throat and fever	Needs an exam, throat culture, prescriptions	Lab (throat culture)*
4	Healthy 29-year-old female with a urinary tract infection, denies vaginal discharge	Needs an exam, urine, and urine culture, maybe urine hCG, and prescriptions	Lab (urine, urine C&S, urine hCG)**
3	A 22-year-old male with right lower quadrant abdominal pain since early this morning + nausea, no appetite	Needs an exam, lab studies, IV fluid, abdominal CT, and perhaps surgical consult	2 or more
3	A 45-year-old obese female with left lower leg pain and swelling, started 2 days ago after driving in a car for 12 hours	Needs exam, lab, lower extremity non-invasive vascular studies	2 or more

Decision Point D

- The Patients Vital Signs
  - Are they within normal parameters for the patients age/history?
  - If outside the normal parameters, do you need to upgrade them to an ESI 2?

Decision Point D (con't)

- What vital signs are included?
  - Pulse
  - Respiratory rate
  - O2 Saturation
  - Temperature (for children under 3 and



Difficult Decisions-

- A patient is brought to the ED via private auto. Ambulatory to the desk complaining of severe RUQ pain. States he was in a MVC approximately an hour ago. He says he was driving his car down the highway and lost control. He went into the ditch and hit a field approach. No seatbelt, but was not ejected. His vital signs are stable and he is pink/warm/dry. This patient should be an ESI 2 and taken to a room immediately based on his mechanism and because of his pain.
- If that same was pale, diaphoretic, and had a SBP of 80-they would be an ESI 1
- As we all know-coming by ambulance DOES NOT mean you are an ESI 1 or 2. Evaluate ambulance patients just like those walking through front door. They can be ESI 5's too!

Danger Zone

- Patients who should be roomed immediately and given ESI 2 level
  - Peds Fever
    - 1- 28 days old if rectal temp > 100.4 F
    - 1-3 months old (consider) if rectal temp > 100.4 F
    - 3 mo.- 3 yrs old
      - Assign ESI 3 if temp > 102.2 F
      - Assign ESI 2 if temp > 102.2 F and patient has incomplete immunizations or no obvious source of fever

Examples: (Case 1)

- “My doctor told me I am 6 weeks pregnant and now I think I am having a miscarriage”
- Healthy looking 28 year old female
- “I started spotting this morning and now I am cramping”
- NKDA
- Meds: prenatal vitamins
- What ESI level would you assign?
  - ESI 3- then you obtain vital signs…
- Vital signs: T 98 F, HR 112, RR 22 BP 90/60
- Would you keep this patient at ESI 3 or change to ESI 2?
  - ESI 2
    - Tachycardiac, tachypneic, hypotensive
      - Rule out-internal bleeding or ectopic

Examples: (Case 2)

- “My baby has had diarrhea since yesterday. The whole family has this GI stuff that is going around.”
- 15 month old with decreased appetite, low-grade temps at home, numerous liquid stools
- Sitting on mom’s lap quietly, fusses a little with getting her ID bracelet on, dry lips
- NKDA
- No PMH
- No Daily meds
- What ESI level would you assign?
  - ESI 3- then get a set of VS
- Vital signs: T 100.4 F, HR 178, RR 48, BP 78/50
- Would you keep this child as an ESI 3 or change to an ESI 2?
  - ESI 2- vital are concerning for a child this age (tachycardiac, tachypneic)

Examples: (Case 3)

- 34 year old obese female c/o generalized abd pain rated 6/10 for past 2 days
- Last BM 3 days ago
- Recent back surgery
- Allergy: peanuts
- No daily meds
- What ESI level would you assign this patient?
  - ESI 3- then you get vital signs…
- Vital signs: T 98.1 F, HR 92, RR 20, BP 132/78, SpO2 99%
  - Would you change the ESI level?
    - No
- How many resources will you need to care for this patient in the ED?
  - Lab, x-ray or CT scan, pain meds, IV fluids- more than 2
  - Do you change the ESI level base on this?
    - No

Examples: (Case 4)

- 9 yo presents to the ED with her mother
- She slipped on the ice and injured her right arm
- Forearm is obviously deformed- CMS intact
- No other injuries
- NKDA
- No daily meds
- No PMH
- What ESI level would you assign this patient?
  - ESI 3- then get vital signs
- Vital signs: BP 100/68, HR 124, RR 32, SpO2 99%
  - This patient vital sign changes are most likely due to pain and anxiety.
  - Patient will remain ESI 3-will need x-ray and pain meds
  - **IF they do a moderate sedation for reduction this patient will increase to ESI 2

Examples: (Case 5)

- 32 year old male present with c/o HTN
- He ran out of his meds 3 days ago
- Denies headache, chest pain or other signs of HTN

- What level ESI would you assign this patient?
  - ESI 5- then you get vital signs

- Vital signs: T 98.3 F, HR 72, RR 16, BP 168/88, SpO2 98%
  - Would these vital signs change your ESI level?
    - No-pt will likely get an exam by MD and and Rx for meds to take at home

References:

- Golboy, N., Tanabe, P., Travers, D., & Rosenau, A. (2012). *Emergency Severity Index (ESI): A Triage Tool for Emergency Department Care* (2012 ed.).