Who’s sick and who’s not?

ESI IN TRIAGE

Avera eCARE®
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
• Undertriage = 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
<table>
<thead>
<tr>
<th>Category</th>
<th>Life-saving</th>
<th>Not life-saving</th>
</tr>
</thead>
</table>
| **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.  
                         • Intravenous 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.  
                         • DS0.  
                         • 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)

<table>
<thead>
<tr>
<th>Resources</th>
<th>Not Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Labs (blood, urine)</td>
<td>H &amp; P</td>
</tr>
<tr>
<td>ECG, X rays, Ct, MRI, US</td>
<td>Point of care testing (Glub and Urine Hcg)</td>
</tr>
<tr>
<td>IV fluids (hydration)</td>
<td>Saline Lock</td>
</tr>
<tr>
<td>IV, IM or nebulized meds</td>
<td>PO meds, Tdap, prescription refills</td>
</tr>
<tr>
<td>Specialty consult</td>
<td>Phone call to PCP</td>
</tr>
<tr>
<td>Simple procedure= laceration repair, foley</td>
<td>Simple wound check (recheck, dressing)</td>
</tr>
<tr>
<td>Complex procedure= moderate sedation</td>
<td>Crutches, sling</td>
</tr>
</tbody>
</table>
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
<table>
<thead>
<tr>
<th>ESI Level</th>
<th>Patient Presentation</th>
<th>Interventions</th>
<th>Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>Healthy 10-year-old child with poison ivy</td>
<td>Needs an exam and prescription</td>
<td>None</td>
</tr>
<tr>
<td>5</td>
<td>Healthy 52-year-old male ran out of blood pressure medication yesterday; BP 150/92</td>
<td>Needs an exam and prescription</td>
<td>None</td>
</tr>
<tr>
<td>4</td>
<td>Healthy 19-year-old with sore throat and fever</td>
<td>Needs an exam, throat culture, prescriptions</td>
<td>Lab (throat culture)*</td>
</tr>
<tr>
<td>4</td>
<td>Healthy 29-year-old female with a urinary tract infection, denies vaginal discharge</td>
<td>Needs an exam, urine, and urine culture, maybe urine hCG, and prescriptions</td>
<td>Lab (urine, urine C&amp;S, urine hCG)**</td>
</tr>
<tr>
<td>3</td>
<td>A 22-year-old male with right lower quadrant abdominal pain since early this morning + nausea, no appetite</td>
<td>Needs exam, lab studies, IV fluid, abdominal CT, and perhaps surgical consult</td>
<td>2 or more</td>
</tr>
<tr>
<td>3</td>
<td>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</td>
<td>Needs exam, lab, lower extremity non-invasive vascular studies</td>
<td>2 or more</td>
</tr>
</tbody>
</table>
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 elderly)
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 Rx for meds to take at home
References: