DMAT Intermediate Triage Lecture Notes
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Objective:
- Describe the differences between START triage and ESI triage, both in terms of levels and context in which they are appropriate.
- Describe the correspondences between START triage and ESI triage.
- Outline the algorithm for triaging using the ESI.

Intermediate Triage
- What we do when we get a bunch of incoming patients at the airport.
- Based on wide-ranging medical knowledge.
- Not suitable to an algorithmic approach, much more an intuitive approach.
- Based on an overall assessment of both the patient’s history, including care already given, and a more detailed exam.
- A black art. Or is it?
- Intermediate triage should aim to retriage patients who have already been triaged in the field, and treated in the field and en route, into categories.
that hospital EDs can use, as well as deciding who goes first.
- Hospitals will receive these patients through the ED, so we should retriage in a manner usable to the EDs.
- Should also consider specialties of hospitals: bad burns should go to Mercy and WestPenn. Bad trauma should go to AGH, Mercy, or Presby.

- **Field triage**
  - Appropriately uses an algorithmic surgical, ATLS/ACLS/START approach.
  - It’s the best way to run through a lot of patients, when in the field and you have little information about them.
  - With it you can quickly get them more or less sorted into the right categories.

- **Field Triage Categories**
  - **Black:** extremely urgent, so much so they will likely die very soon, or are already dead.
  - **Red:** most urgent
  - **Yellow:** less urgent
  - **Green:** not really urgent

- **Emergency Department Triage**
  - The ESI (Emergency Severity Index) is an official but voluntary Federal government sponsored system that is widely accepted and scientifically validated and refined. Used in well more than half of US EDs, the most popular ED
triage system. It’s based not only on severity, but how much work the patient needs prior to disposition. It’s a patient flow type of triage, as opposed to the acuity used for levels 1-2. Allows parallel processing. Studies show it correlates with admission and mortality as well. Again, only for less-acute patients.

- ED triage nurses are clearly the best at this. With their experience, they can spend just look at a patient and assign a triage level accurately.
- ED docs are almost as good. Other docs, nurses, PA/NP/medic types, not so much. The more ED or related experience you
- Five categories.
- AGH and affiliated hospitals prefer the numbers. UPMC hospitals generally prefer the colors, as these are used in their ED tracking system. For SW PA, use both to avoid misunderstanding.
  - 1 (Red): e.g., CPR in progress, bad trauma.
  - 2 (Pink): e.g., chest pain, post-arrest, moderately bad trauma, septic patient, bad Gi bleed.
  - 3 (Yellow): e.g., abdominal pain for two days, fracture that might require surgery
- 4 (Green): e.g., UTI, sore throat, sprained ankle.
- 5 (Blue): e.g., prescription refill.

Overview of ESI algorithm (a corruption of the name of the inventor, Muḥammad ibn Mūsā al-Khwārizmī, c. 780 – c. 850, citizen of the Abbasid Empire, professor at the House of Wisdom in Baghdad 1200 years ago):
- Patient dying? > 1 (Red)
- Shouldn’t wait? > 2 (Pink)
- How many resources?
  - Many > 3 (Yellow) Check VS, if abnormal, consider upgrade to 2 (Pink)
  - One > 4 (Green)
  - None > 5 (Blue)

What are resources?

<table>
<thead>
<tr>
<th>Resources</th>
<th>Not resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Labs (blood, urine)</td>
<td>History &amp; physical (including pelvic)</td>
</tr>
<tr>
<td>ECG, X-rays</td>
<td>Point-of-care testing</td>
</tr>
<tr>
<td>CT-MRI-ultrasound angiography</td>
<td></td>
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<tr>
<td>IV fluids (hydration)</td>
<td>Saline or heplock</td>
</tr>
<tr>
<td>IV, IM or nebulized medicines</td>
<td>PO medications</td>
</tr>
<tr>
<td></td>
<td>Tetanus immunization</td>
</tr>
<tr>
<td></td>
<td>Prescription refills</td>
</tr>
<tr>
<td>Specialty consultation</td>
<td>Phone call to PCP</td>
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<tr>
<td>------------------------</td>
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<tr>
<td>Simple procedure = 1 (lac repair, Foley cath)</td>
<td>Simple wound care (dressings, recheck)</td>
</tr>
<tr>
<td>Complex procedure = 2 (conscious sedation)</td>
<td>Crutches, splints, slings</td>
</tr>
</tbody>
</table>

- Algorithm in detail again:
  - Patient dying? Immediate life-saving intervention required: airway, emergency medications, or other hemodynamic interventions; intubated, apneic, pulseless, severe respiratory distress, SPO2<90, acute mental status changes, or unresponsive. > 1 (Red)
  - High-risk situation? Confused, Lethargic, or Disoriented? Severe pain or distress? > 2 (Pink)
  - Number of resources? > 3, 4 or 5.
  - Vital signs (maybe bump up to 2).
- Google “ESI Implementation Manual” to learn more; excellent document.
- Questions?