Chapter 3. Introduction to the Emergency Severity Index

The Emergency Severity Index (ESI) is a simple to use, five-level triage instrument that categorizes emergency department patients by evaluating both patient acuity and resources. Initially the triage nurse assesses only acuity level. If a patient does not meet high acuity level criteria (ESI level 1 or 2), the triage nurse then evaluates expected resource needs to help determine a triage level (ESI level 3, 4, or 5). Inclusion of resource needs in the triage rating is a unique feature of the ESI in comparison with other triage systems. Acuity is determined by the stability of vital functions and potential for life, limb, or organ threat. The triage nurse estimates resource needs based on previous experience with patients presenting with similar injuries or complaints. Resource needs are defined as the number of resources a patient is expected to consume in order for a disposition decision to be reached. Once appropriately oriented to the algorithm, the triage nurse will be able to rapidly and accurately triage patients into one of five explicitly defined and mutually exclusive levels. The ESI provides emergency departments with a valid, reliable triage system (Eitel, Travers, Rosenau, Gilboy & Wuerz, 2003; Travers, Waller, Bowling, Flowers & Tintinalli, 2002; Wuerz, Travers, Gilboy, Eitel, Rosenau & Yazhari, 2001; Tanabe, Gimbel, Yarnold, Kyriacou, & Adams, 2004; Tanabe, Gimbel, Yarnold, & Adams, 2004).

In this chapter, we present a step-by-step description of how to triage with the ESI algorithm. Subsequent chapters explain key concepts in more detail and provide numerous examples to clarify the finer points of ESI application.

Algorithms are frequently used in emergency care. Most emergency clinicians are familiar with the algorithms used in courses such as Basic Life Support, Advanced Cardiac Life Support, and the Trauma Nursing Core Course. These courses present a step-by-step approach to clinical decision making that the clinician is able to internalize with practice. Each step of the algorithm tells the user what questions to ask or what information to gather. Based on the data or answers obtained, a decision is made and the algorithm directs the user to the next step, and ultimately to an outcome.

Triage with the ESI algorithm requires the experienced ED nurse to start at the top of the algorithm. A conceptual overview of the ESI algorithm is presented in Figure 3-1 to illustrate the major ESI decision points. The actual ESI algorithm is described in detail later in this chapter (Figure 3-1a). The algorithm uses four decision points (A, B, C, and D) to sort patients into one of the five triage levels (Figure 3-1). With practice, the triage nurse will be able to rapidly move from one ESI decision point to the next.

![Figure 3-1. Emergency Severity Index Conceptual Algorithm, v. 4](https://example.com/esi_algorithm.png)


The four decision points depicted in the conceptual algorithm (Figure 3-1) are critical to accurate and reliable application of ESI. Figure 3-1 shows the four decision points reduced to four key questions:

A. Is this patient dying?
B. Is this a patient who shouldn't wait?
C. How many resources?
D. Vital signs


1. **Patient dying?**
   - Yes: Proceed to step 1.
   - No: Proceed to step 2.

2. **Shouldn't wait?**
   - Yes: Proceed to step 3.
   - No: Proceed to step 4.

3. **How many resources?**
   - None: Proceed to step 5.
   - One: Proceed to step 4.
   - Many: Consider.

4. **Vital signs**
   - Consider:
     - Yes: Proceed to step 3.
     - No: Proceed to step 5.

5. **Decision**
   - Complete the triage process.
C. How many resources will this patient need?

D. What are the patient’s vital signs?

The answers to the questions guide the user to the correct triage level.

**Decision Point A: Is the Patient Dying?**

Simply stated, at decision point A (Figure 3-2) the triage nurse asks if this patient is dying. If the answer is “yes,” the triage process is complete and the patient is automatically triaged as ESI level 1. A “no” answer moves the user to the next step in the algorithm, decision point B.

The following question is used to determine whether the patient is dying (conceptual algorithm):

Does the patient require immediate life-saving intervention? The following questions are helpful in determining whether the patient meets level-1 criteria:
### Table 3-1. Immediate Life-saving Interventions

<table>
<thead>
<tr>
<th>Life-saving</th>
<th>Not life-saving</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Airway/breathing</strong></td>
<td><strong>Electrical Therapy</strong></td>
</tr>
<tr>
<td>- BVM ventilation</td>
<td>- Defibrillation</td>
</tr>
<tr>
<td>- Intubation</td>
<td>- Emergent cardioversion</td>
</tr>
<tr>
<td>- Surgical airway</td>
<td>- Open thoracotomy</td>
</tr>
<tr>
<td>- Emergent CPAP</td>
<td>- Intraoperative access</td>
</tr>
<tr>
<td>- Emergent BiPAP</td>
<td></td>
</tr>
</tbody>
</table>

- Oxygen administration
  - nasal cannula
  - non-rebreather

**Research has demonstrated that the triage nurse is able to accurately predict the need for immediate interventions (Tanabe et al., in press). Table 3-1 lists interventions that are considered life saving and those that are not, for the purposes of ESI triage.**

Interventions not considered life saving include some interventions that are diagnostic or therapeutic, but none that would “save a life.” Life-saving interventions are aimed at securing an airway, maintaining breathing, or supporting circulation. Listed below are additional questions that may be helpful in determining whether the patient requires a life-saving intervention.

- Does the patient require an immediate airway, medication, or other hemodynamic intervention?
- Does the patient meet any of the following criteria: already intubated, apneic, pulseless, severe respiratory distress, SpO2 < 90 percent, acute mental status changes, or unresponsive?

The ESI level-1 patient always presents to the emergency department with an unstable condition. Because the patient could die without immediate...
care a team response is initiated; the physician is at the bedside, and nursing is providing intensive care. ESI level-1 patients are seen immediately because timeliness of interventions can affect morbidity and mortality.

Immediate physician involvement in the care of the patient is a key difference between ESI level-1 and 2 patients. Level-1 patients are critically ill and require immediate physician evaluation and interventions. Conversely, while level-2 patients are also very ill, the emergency nurse can initiate care through protocols without a physician at the bedside. The nurse recognizes that the patient needs interventions but is confident that the patient’s clinical condition will not deteriorate. The emergency nurse can initiate intravenous access, administer supplemental oxygen, obtain an ECG, and place the patient on a cardiac monitor, all before a physician presence is needed.

When considering the need for immediate life-saving interventions, the triage nurse also carefully evaluates the patients' respiratory status and oxygen saturation (SpO2). A patient in severe respiratory distress or with an SpO2 < 90 percent may still be breathing, but is in need of immediate intervention to maintain an airway and oxygenation status. This is the patient who will require the physician in the room ordering medications such as those used for rapid sequence intubation or preparing for other interventions for airway and breathing.

Patients with chest pain must also be evaluated using the same criteria. Some patients presenting with chest pain are very stable. Although they may require a diagnostic ECG, these patients do not meet level-1 criteria. However, patients who are pale, diaphoretic, in acute respiratory distress or hemodynamically unstable will require immediate life-saving interventions and do meet level-1 criteria. Each patient with chest pain must still be evaluated within the context of the level-1 criteria to determine whether the patient requires an immediate life-saving intervention.

When determining whether the patient requires immediate life-saving intervention, the triage nurse must also assess the patient's level of consciousness. The ESI algorithm uses the AVPU (alert, verbal, pain, unresponsive) scale, (see Table 3-2). The goal for this part of the algorithm is to identify the patient who has an acute change in level of consciousness. The triage nurse needs to assess this patient for a change from baseline and the critical concern is the formerly alert patient who is now labeled a P (pain) or U (unresponsive). Unresponsiveness is assessed in the context of acute changes in neurological status, not for the patient who has known developmental delays, documented dementia, or aphasia. Any patient who is unresponsive, including the intoxicated patient unresponsive to painful stimuli meets level-1 criteria and should receive immediate evaluation. An example of an acute mental status change that would require immediate intervention would be a patient with decreased mental status who is unable to maintain an airway or has severe respiratory distress.

Table 3-2  Four Levels of the AVPU Scale

<table>
<thead>
<tr>
<th>AVPU level</th>
<th>Level of consciousness</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Alert. The patient is alert, awake and responds to voice. The patient is oriented to time, place and person. The triage nurse is able to obtain subjective information.</td>
</tr>
<tr>
<td>V</td>
<td>Verbal. The patient responds to verbal stimuli by opening their eyes when someone speaks to them. The patient is not fully oriented to time, place, or person.</td>
</tr>
<tr>
<td>P</td>
<td>Painful. The patient does not respond to voice, but does respond to a painful stimulus, such as a squeeze to the hand or sternal rub. A noxious stimulus is needed to elicit a response.</td>
</tr>
<tr>
<td>U</td>
<td>Unresponsive. The patient is nonverbal and does not respond even when a painful stimulus is applied</td>
</tr>
</tbody>
</table>

Previous users of ESI version 3 (v. 3) will note a major change in the ESI level-1 criteria. The key difference between ESI v. 3 and ESI version 4 (v. 4) is the identification and re-classification of some of the sickest, previously ESI level-2 patients. Patients requiring immediate life-saving intervention are now classified as ESI level 1. In the previous ESI version, a patient in severe respiratory distress who required intubation but was still breathing was categorized as ESI level 2. In the current version, this patient meets level-1 criteria. Other examples of patients now classified as ESI level 1 include a weak
and dizzy patient with a heart rate of 30 or 200. Although this change may not affect a large number of patients, it will result in the accurate categorization of the most acutely ill patients. Prior to v. 4, triage nurses were frequently confronted with two distinct levels of ESI level-2 patients; patients who required immediate evaluation and patients who could wait a brief time (10 minutes or so) without clinical deterioration. This dilemma led to a large, multi-center, prospective study that was conducted to identify characteristics of ESI level-2 patients who actually received immediate interventions (Tanabe et al., in press). Results from that multicenter study were the impetus for modifying the ESI system. This updated edition of the ESI handbook presents the changes and describes ESI v. 4.

An ESI level-1 patient is not always brought to the emergency department by ambulance. The patient with a drug overdose or acute alcohol intoxication may be dropped at the front door. Children may be brought by car and carried into the emergency department. The experienced triage nurse is able to instantly identify this critical patient. With a brief, across-the-room assessment the triage nurse recognizes the patient that is in extremis. This patient is taken immediately to the treatment area and resuscitation efforts are initiated.

Patients assessed as an ESI level 1 constitute approximately 1 percent to 3 percent of all ED patients (Eitel et al., 2003; Wuerz, Milne, Eitel, Travers & Gilboy, 2000; Wuerz et al., 2001). Upon arrival, the patient's condition requires immediate resuscitation from either the emergency physician and nurse or the trauma or code team. From ESI research we know that most ESI level-1 patients are admitted to intensive care units, while some die in the emergency department (Eitel et al., 2003; Wuerz, 2001). A few ESI level-1 patients are discharged from the ED, if they have a reversible change in level of consciousness or vital functions such as hypoglycemia, seizures, alcohol intoxication, or anaphylaxis.

Examples of ESI level 1:
- Cardiac arrest.
- Respiratory arrest.
- Severe respiratory distress.
- SpO2 < 90.
- Critically injured trauma patient who presents unresponsive.
- Overdose with a respiratory rate of 6.

- Severe respiratory distress with agonal or gasping-type respirations.
- Severe bradycardia or tachycardia with signs of hypoperfusion.
- Hypotension with signs of hypoperfusion.
- Trauma patient who requires immediate crystalloid and colloid resuscitation.
- Chest pain, pale, diaphoretic, blood pressure 70/palp.
- Weak and dizzy, heart rate = 30.
- Anaphylactic reaction.
- Baby that is flaccid.
- Unresponsive with strong odor of ETOH.
- Hypoglycemia with a change in mental status.

**Decision Point B: Should the Patient Wait?**

Once the triage nurse has determined that the patient does not meet the criteria for ESI level 1, the triage nurse moves to decision point B (see Figure 3-3). At decision point B the nurse needs to decide whether this patient should wait to be seen. If the patient should not wait, the patient is triaged as ESI level 2. If the patient can wait, then the user moves to the next step in the algorithm.

![Figure 3-3. Decision Point B: Should the Patient Wait?](image-url)

Three broad questions are used to determine whether the patient meets level-2 criteria.

1. Is this a high-risk situation?
2. Is the patient confused, lethargic or disoriented?
3. Is the patient in severe pain or distress?

The triage nurse obtains pertinent subjective and objective information to quickly answer these questions. A brief introduction to ESI level-2 criteria is presented here, while a more detailed explanation of patients who meet ESI level-2 criteria will be presented in Chapter 4.
**Is This a High-risk Situation?**

Based on a brief patient interview, gross observations, and finally the “sixth sense” that comes from experience, the triage nurse identifies the patient who is high risk. Frequently the patient's age and past medical history influence the triage nurse's determination of risk. A high-risk patient is one whose condition could easily deteriorate or a patient who presents with symptoms suggestive of a condition requiring time-sensitive treatment. This is a patient who has a potential major life or organ threat. A high-risk patient does not require a detailed physical assessment or even a full set of vital signs in most cases. The patient may describe a clinical portrait that the experienced triage nurse recognizes as a high-risk situation. An example of such a portrait is the patient who states, “I never get headaches and I lifted this heavy piece of furniture and now I have the worst headache of my life.” The triage nurse would triage this patient as ESI level 2 because the symptoms suggest the possibility of a subarachnoid hemorrhage.

When the patient is an ESI level 2, the triage nurse has determined that it would be unsafe for the patient to remain in the waiting room for any length of time. While ESI does not suggest specific time intervals, ESI level-2 patients remain a high priority and generally placement and treatment should be initiated within 10 minutes of arrival. It is important to remember that while the level-1 criteria have expanded with v. 4 of the algorithm, ESI level-2 patients are still considered very ill and at high risk. The need for care is immediate and an appropriate bed needs to be found. Usually, rather than move to the next patient, the triage nurse feels that this patient is so sick that the charge nurse or staff in the patient care area should be immediately alerted that they have an ESI level 2.

Examples of high-risk situations:
- Active chest pain, suspicious for coronary syndrome, but does not require an immediate life-saving intervention, stable.
- A needle stick in a health care worker.
- Signs of a stroke, but does not meet level-1 criteria.
- A rule-out ectopic pregnancy, hemodynamically stable.
- A patient on chemotherapy, and therefore immunocompromised, with a fever.
- A suicidal or homicidal patient.

Chapter 4 contains additional information on high-risk situations.

**Is the Patient Confused, Lethargic, or Disoriented?**

This is the second question to be asked at decision point B. Again the concern is whether the patient is demonstrating an acute change in level of consciousness. Patients with a baseline mental status of confusion do not meet level-2 criteria.

- Confused: Inappropriate response to stimuli, decrease in attention span and memory.
- Lethargic: Drowsy, sleeping more than usual, responds appropriately when stimulated.
- Disoriented: The patient is unable to answer questions correctly about time, place or person.

Examples of patients who are confused, lethargic, or disoriented:
- New onset of confusion in an elderly patient.
- The 3-month-old whose mother reports the child is sleeping all the time.
- The adolescent found confused and disoriented.

Each of these examples indicates that the brain may be either structurally or chemically compromised.

**Is This Patient in Severe Pain or Distress?**

The third question the triage nurse needs to answer at decision point B is whether this patient is currently in pain or distress. If the answer is “no,” the triage nurse is able to move to the next step in the algorithm. If the answer is “yes,” the triage nurse needs to assess the level of pain or distress. This is determined by clinical observation and/or a self-reported pain rating of 7 or higher on a scale of 0 to 10. When patients report pain ratings of 7/10 or greater, the triage nurse may triage the patient as ESI level 2, but is not required to assign a level-2 rating. Pain is one of the most common reasons for an ED visit and clearly all patients reporting pain 7/10 or greater do not need to be assigned an ESI level-2 triage rating. A patient with a sprained ankle and
pain of 8/10 is a good example of an ESI level-4 patient. It is not necessary to rate this patient as a level 2 based on pain alone.

In some patients, pain can be assessed by clinical observation: distressed facial expression, diaphoresis, body posture, and changes in vital signs. The triage nurse observes physical responses to acute pain that support the patient’s rating. For example, the patient with abdominal pain who is diaphoretic, tachycardic, and has an elevated blood pressure; or the patient with severe flank pain, vomiting, pale skin, and a history of renal colic are both good examples of patients that meet ESI level-2 criteria. Chapter 4 provides additional information on ESI level 2 and pain.

Severe distress can be physiological or psychological. Examples of distress include the sexual assault victim, the combative patient, or the bipolar patient who is currently manic.

ESI level-2 patients constitute a relatively low volume, high-risk group that comprise 20 percent to 30 percent of emergency department patients (Travers et al., 2002; Wuerz et al., 2001, Tanabe, Gimbel et al., 2004). Once an ESI level-2 patient is identified, the triage nurse needs to ensure that the patient is cared for in a timely manner. Registration can be completed by a family member or at the bedside. ESI level-2 patients need vital signs and a comprehensive nursing assessment but not necessarily at triage. Placement should not be delayed to finish obtaining vital signs. ESI research has shown that 50 to 60 percent of ESI level-2 patients are admitted from the ED (Wuerz et al., 2001).

**Decision Point C: Resource Needs**

If the answers to the questions at the first two decision points are “no,” then the triage nurse moves to decision point C (see Figure 3-4). The triage nurse should ask, “How many different resources do you think this patient is going to consume in order for the physician to reach a disposition decision?” The disposition decision could be to send the patient home, admit to the observation unit, admit to the hospital, or even to transfer to another institution. This decision point again requires the triage nurse to draw from past experiences in caring for similar emergency department patients. ED nurses need to clearly understand that the estimate of resources has to do with standards of care and is independent of type of hospital (i.e., teaching or non-teaching) and location. A patient presenting to any emergency department should consume the same general resources in order for a disposition to be reached. Considering the patient’s brief subjective and objective assessment, past medical history, allergies, medications, age, and gender, how many different resources will be used in order for the physician to reach a disposition? In other words, what is typically done for the patient who presents to the emergency department with this common complaint? The triage nurse is asked to do this based on his or her assessment of the patient and should not consider individual practice patterns, but rather the routine practice in the particular ED.

To identify resource needs the triage nurse must be familiar with emergency department standards of care. The triage nurse must be knowledgeable about the concept of “prudent and customary.” One easy way to think about this concept is to ask the question “Given this patient’s chief complaint or injury, what resources is the emergency physician likely to utilize?” Resources can be hospital services, tests, procedures, consults or interventions that are above and beyond the physician history and physical, or very simple emergency department interventions such as applying a bandage. Further explanations and examples are provided in Chapter 5.

A list of what is and what is not considered a resource for purposes of ESI triage classification can be found in Table 3-3. ESI level-3 patients are predicted to require two or more resources; ESI level-4 patients are predicted to require one resource; and ESI level-5 patients are predicted to require no resources (Table 3-4).
Research has shown that ESI level-3 patients make up 30 percent to 40 percent of patients seen in the emergency department (Eitel et al., 2003; Wuerz et al., 2001). They often require a more in-depth evaluation but are felt to be stable in the short term, and certainly may have a longer length of stay in the ED. ESI level 4 and ESI level 5 make up between 20 percent and 35 percent of ED volume, perhaps even more in a community with poor primary care access. Appropriately trained mid-level providers with the right skills mix could care for these patients in a fast-track or express care setting, recognizing that a high proportion of these patients have a trauma-related presenting complaint. Since their physical condition is stable, these patients could safely wait several hours to be seen.

### Table 3-3. ESI Resources

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

### Table 3-4. Predicting 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 an 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>

* In some regions throat cultures are not routinely performed; instead, the patient is treated based on history and physical exam. If that is the case the patient would be an ESI level 5.

** All 3 tests count as one resource (Lab).
**Decision Point D: The Patient's Vital Signs**

Before assigning a patient to ESI level 3, the nurse needs to look at the patient's vital signs and decide whether they are outside the accepted parameters for age and are felt by the nurse to be meaningful. If the vital signs are outside accepted parameters, the triage nurse should consider upgrading the triage level to ESI level 2. However, it is the triage nurse’s decision as to whether or not the patient should be upgraded to an ESI level 2 based on vital sign abnormalities. This is decision point D.

Vital sign parameters are outlined by age (see Figure 3-5). The vital signs used are pulse, respiratory rate, and oxygen saturation and, for any child under age three, body temperature. Using the vital sign criteria, the triage nurse can upgrade an adult patient who presents with a heart rate of 104, or this patient can remain ESI level 3. A 6-month-old baby with a cold and a respiratory rate of 48 could be triaged ESI level 2 or 3. Based on the patient’s history and physical assessment, the nurse must ask if the vital signs are enough of a concern to say that the patient is high risk and cannot wait to be seen. Chapter 6 explains vital signs in detail and gives examples.

Temperature is only included with children under age three. Significant fever may exclude young children from categories 4 and 5. This will help identify potentially bacteremic children and avoid sending them to a fast track setting or waiting a prolonged time. Pediatric fever guidelines will be described in detail in Chapter 6.

**Does Time to Treatment Influence ESI Triage Categories?**

An estimate of how long the patient can wait to be seen by a physician is an important component of most triage systems. The Australasian and Canadian Triage Systems require patients to be seen by a physician within a specific time period, based on their triage category. ESI does not mandate specific time standards in which patients must be evaluated by a physician. However, patients who meet criteria for ESI level 2 should be seen as soon as possible; it is up to the individual institution to determine a policy. Frequently, there may be confusion between institutional policy and “flow or process of patient care” and ESI triage level.

We will describe four patient scenarios in which flow and triage category may seem to conflict. Often trauma patients present to the triage nurse after sustaining a significant mechanism of injury, such as an unrestrained passenger in a high-speed motor vehicle crash. The patient may have left the crash scene in some way other than by ambulance, and then presents to triage with localized right upper quadrant pain with stable vital signs. This patient is physiologically stable, walked into the ED and does not meet ESI level-1 criteria. However, the patient is at high risk for a liver laceration and other significant trauma, so should be triaged as ESI level 2. Frequently, EDs have trauma policies and trauma response level categorization that will require rapid initiation of care. Triage and trauma response level are both important and should be recorded as two different scores. While the triage nurse recognizes this is a physiologically stable trauma patient and correctly assigns ESI level 2, she should facilitate patient placement and trauma care as outlined by the trauma policy. The patient is probably stable for another 10 minutes and does not require immediate life-saving interventions. If the same patient presented with a blood pressure of 80 palpable, they would be triaged as ESI level 1 and require immediate hemodynamic, life-saving interventions.
Another example of policies that may affect triage level is triage of the patient with stable chest pain. If the patient is physiologically stable but experiencing chest pain that is potentially an acute coronary syndrome, the patient meets ESI level-2 criteria. They do not require immediate life-saving interventions but they are a high-risk patient. Their care is time-sensitive, an ECG should be performed within 10 minutes of patient arrival. Often, EDs will have a policy related to rapid initiation of an ECG. While care of these patients should be rapidly initiated, the ECG is not a life-saving intervention, it is a diagnostic procedure. If the triage nurse were to triage all chest pain patients as ESI level 1, it would be difficult to prioritize the care for true ESI level-1 patients who require immediate life-saving interventions. But the patient with chest pain who presents to triage diaphoretic, with a blood pressure of 80 palpable would meet ESI level-1 criteria.

The third example of time-sensitive care is patients who present with signs of an acute stroke. Again, if physiologically stable, a 10 minute wait to initiate care will probably not further compromise the patient. However, the patient with signs of stroke that is unable to maintain an airway meets ESI level-1 criteria.

Finally, a somewhat different scenario is an elderly patient that fell, may have a fractured hip, arrives by private car with family, and is in pain. The patient does not really meet ESI level-2 criteria but is very uncomfortable. The triage nurse would categorize the patient as ESI level 3 and probably place the patient in an available bed before other ESI level-3 patients. Ambulance patients may also present with a similar scenario. Arriving by ambulance is not a criterion to assign a patient ESI level 1 or 2. The ESI criteria should always be used to determine triage level without regard to method of arrival.

In general, care of ESI level-2 patients should be rapidly facilitated and patients should ideally wait no longer than 10 minutes to be placed in the treatment area. It is important to remember that while ESI v. 4 has expanded level-1 criteria to include patients requiring immediate interventions that were previously ESI level 2, all level-2 patients are still potentially very ill and require rapid initiation of care and evaluation. The triage nurse has determined that it is unsafe for these patients to wait. Patients may currently be stable, but also have a condition that can easily deteriorate, and/or initiation of diagnostic treatment may be time sensitive (stable chest pain requires an ECG in 10 minutes of arrival), or the patient has a potential major life or organ threat. ESI level-2 patients are still considered to be very high risk.

In the current atmosphere of ED overcrowding, it is not uncommon for the triage nurse to be in a situation of triaging many ESI level-2 patients with no open ED beds in which to place the patients. In these situations, the triage nurse may be tempted to “undertriage.” This can lead to serious, negative patient outcomes and an under-representation of the ED’s overall case mix. When faced with multiple ESI level-2 patients simultaneously, the triage nurse must evaluate each patient according to the ESI algorithm. Then, the nurse can “triage” all level-2 patients to determine which patient(s) are at highest risk, in order to facilitate patient placement based on this evaluation.

**Summary**

In summary, the ESI is a five-level triage system that is simple to use and divides patients by acuity and resource needs. The ESI triage algorithm is based on four key decision points. The experienced ED RN will be able to rapidly and accurately triage patients using this system.

**References**


**Note:** Appendix A of this handbook includes frequently asked questions and post-test assessment questions for Chapters 3 through 8. These sections can be incorporated into the ESI training course.