TRIAGE IN THE EMERGENCY DEPARTMENT

General Principles

Aims:
• To ensure that patients are treated in the order of their clinical urgency
• To ensure that treatment is appropriately and timely.
• To allocate the patient to the most appropriate assessment and treatment area
• To gather information that facilitates the description of the departmental casemix.

Background Information

Triage is an essential function in Emergency Departments (EDs), where many patients may present simultaneously. Urgency refers to the need for time-critical intervention - it is not synonymous with severity. Patients triaged to lower acuity categories may be safe to wait longer for assessment and treatment but may still require hospital admission.

Key points
1. The assessment/ triage area must be immediately accessible and clearly sign-posted. Its design should allow for:
   • patient examination
   • means of communication between entrance and assessment area
   • privacy
2. Strategies to protect staff will exist
3. The same standards for triage categorisation should apply to all Emergency Departments (ED) settings. It should be remembered however that a symptom reported by an adult may be less significant than the same symptom found in a child and may render a child’s urgency greater.
4. Victims of trauma should be allocated a triage category according to their objective clinical urgency. As with other clinical situations, this will include consideration of high-risk history as well as brief physical assessment (general appearance +/- physiological observations).
5. Patients presenting with mental health or behavioural problems should be triaged according to their clinical and situational urgency, as with other ED patients. Where physical and behavioural problems co-exist, the highest appropriate triage category should be applied based on the combined presentation.

Equipment Requirements

• Emergency equipment
• Facilities for using standard precautions (hand-washing facilities, gloves)
• Adequate communications devices (telephone and/or intercom etc)
• Facilities for recording triage information.

The Australasian Triage Scale

<table>
<thead>
<tr>
<th>AUSTRALIAN TRIAGE SCALE CATEGORY</th>
<th>ACUITY (Maximum waiting time)</th>
<th>PERFORMANCE INDICATOR THRESHOLD</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATS 1</td>
<td>Immediate</td>
<td>100%</td>
</tr>
<tr>
<td>ATS 2</td>
<td>10 minutes</td>
<td>80%</td>
</tr>
<tr>
<td>ATS 3</td>
<td>30 minutes</td>
<td>75%</td>
</tr>
<tr>
<td>ATS 4</td>
<td>60 minutes</td>
<td>70%</td>
</tr>
<tr>
<td>ATS 5</td>
<td>120 minutes</td>
<td>70%</td>
</tr>
</tbody>
</table>

1. The most urgent clinical feature identified determines the ATS category.
2. Once a high-risk feature is identified, a response equal to the urgency of that feature should be initiated.
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Allocation of Triage Category

Key point

The triage assessment should generally take no more than two to five minutes.

<table>
<thead>
<tr>
<th>PROCEDURE</th>
<th>ADDITIONAL INFORMATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>On arrival assess the patient.</td>
<td>All patients presenting to an Emergency Department should be triaged on arrival by a specifically trained and experienced registered nurse. (Ad)</td>
</tr>
<tr>
<td>Balance the need for speed against the need to be thorough.</td>
<td>The triage assessment is not necessarily intended to make a diagnosis.</td>
</tr>
<tr>
<td>If time permits and condition permits measure vital signs at triage if required to estimate urgency</td>
<td>Use a combination of the presenting problem, general appearance and possibly physiological observations to assess the patient’s urgency.</td>
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<tr>
<td>Determine the clinical urgency of the patient.</td>
<td></td>
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<tr>
<td>Notify doctor on call of patient’s arrival and ATS category as required.</td>
<td>Indicate urgency of doctor’s attendance.</td>
</tr>
<tr>
<td>Allocate an Australian Triage Scale (ATS) code in response to the question: “This patient should wait for medical assessment and treatment no longer than....”.</td>
<td>The Australasian Triage Scale (ATS) is a scale for rating clinical urgency so that patients are seen in a timely manner, commensurate with their clinical urgency.</td>
</tr>
<tr>
<td>Take any patient identified as ATS Category 1 or 2 into the appropriate assessment and treatment area immediately.</td>
<td>A more complete nursing assessment should be done by the treatment nurse receiving the patient.</td>
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<tr>
<td>Meet any immediate care needs.</td>
<td>Standing orders may apply</td>
</tr>
<tr>
<td>As appropriate, initiate appropriate investigations (e.g. x-rays) or initial management according to hospital protocol.</td>
<td>Waiting time is reduced and patient satisfaction is increase where nursing staff follow protocols and order tests and or management. (Level III-3)</td>
</tr>
<tr>
<td>Document details of the triage assessment in the patient’s notes. Include at least the:</td>
<td>Use a trauma record form as appropriate</td>
</tr>
<tr>
<td>• Date and time of assessment</td>
<td></td>
</tr>
<tr>
<td>• Name of triage nurse</td>
<td></td>
</tr>
<tr>
<td>• Chief presenting problem(s)</td>
<td></td>
</tr>
<tr>
<td>• Limited, relevant history</td>
<td></td>
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<tr>
<td>• Relevant assessment findings</td>
<td></td>
</tr>
<tr>
<td>• MDC and BRIS code (if applic.)</td>
<td></td>
</tr>
<tr>
<td>• Initial triage category allocated</td>
<td></td>
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<tr>
<td>• Any diagnostic, first aid or treatment measures initiated.</td>
<td></td>
</tr>
<tr>
<td>Ensure continuous reassessment of patients who remain waiting.</td>
<td>Both the initial triage and any subsequent categorisations should be recorded, and the reason for the re-triage documented.</td>
</tr>
<tr>
<td>Re-triage a patient if:</td>
<td></td>
</tr>
<tr>
<td>• his/her condition changes while they are waiting for treatment</td>
<td></td>
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<tr>
<td>• additional relevant information becomes available that impacts on the patient’s urgency</td>
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</tbody>
</table>

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The clinical descriptors listed in each category are based on available research data where possible, as well as expert consensus. However, the list is not intended to be exhaustive nor absolute and must be regarded as indicative only. Absolute physiological measurements should not be taken as the sole criterion for allocation to an ATS category. Senior clinicians should exercise their judgment and, where there is doubt, err on the side of caution.²

Key points
1. The most urgent clinical feature identified determines the ATS category.²
2. Once a high-risk feature is identified, a response commensurate with the urgency of that feature should be initiated.²

ATS Category 1 - Immediate simultaneous assessment and treatment

Immediately Life-Threatening Condition
Conditions that are threats to life (or imminent risk of deterioration) and require immediate aggressive intervention.

Clinical Descriptors (indicative only)
- Cardiac arrest
- Respiratory arrest
- Immediate risk to airway - impending arrest
- Respiratory rate <10/min
- Extreme respiratory distress
- BP< 80 (adult) or severely shocked child/infant
- Unresponsive or responds to pain only (GCS < 9)
- Ongoing/prolonged seizure
- IV overdose and unresponsive or hypoventilation
- Severe behavioural disorder with immediate threat of dangerous violence

ATS Category 2 - Assessment and treatment within 10 minutes (often simultaneously)

Imminently Life threatening
The patient’s condition is serious enough or deteriorating so rapidly that there is the potential of threat to life, or organ system failure, if not treated within ten minutes of arrival or

Important time-critical treatment
The potential for time-critical treatment (e.g. thrombolysis, antidote) to make a significant effect on clinical outcome depends on treatment commencing within a few minutes of the patient’s arrival in the ED or

Very severe pain
Humane practice mandates the relief of very severe pain or distress within 10 minutes

Clinical Descriptors Category 2 (indicative only)
- Airway risk - severe stridor or drooling with distress
- Severe respiratory distress
- Circulatory compromise
  - Clammy or mottled skin, poor perfusion
  - HR<50 or >150 (adult)
  - Hypotension with haemodynamic effects
  - Severe blood loss
  - Chest pain of likely cardiac nature
- Very severe pain - any cause
- BSL < 2 mmol/l
- Drowsy, decreased responsiveness any cause (GCS< 13)
- Acute hemiparesis/dysphasia
- Fever with signs of lethargy (any age)
- Acid or alkali splash to eye - requiring irrigation
- Major multi trauma (requiring rapid organised team response)
- Severe localised trauma - major fracture, amputation
- High-risk history:
  - Significant sedative or other toxic ingestion
  - Significant/dangerous envenomation
  - Severe pain suggesting PE, AAA or ectopic pregnancy
- Behavioural/Psychiatric:
  - violent or aggressive
  - immediate threat to self or others
  - requires or has required restraint
  - severe agitation or aggression

ATS Category 3 - Assessment and treatment start within 30 mins

**Potentially Life-Threatening**

The patient’s condition may progress to life or limb threatening, or may lead to significant morbidity, if assessment and treatment are not commenced within thirty minutes of arrival. or

**Situational Urgency**

There is potential for adverse outcome if time-critical treatment is not commenced within thirty minutes or

Humane practice mandates the relief of severe discomfort or distress within thirty minutes

**Clinical Descriptors (indicative only)**

- Severe hypertension
- Moderately severe blood loss - any cause
- Moderate shortness of breath
- SAO₂ 90 - 95%
- BSL >16 mmol/l
- Seizure (now alert)
- Any fever if immunosuppressed eg oncology patient, steroid Rx
- Persistent vomiting
- Dehydration
- Head injury with short LOC- now alert
- Moderately severe pain - any cause - requiring analgesia
- Chest pain likely non-cardiac and mod severity
- Abdominal pain without high risk features - mod severe or patient age >65 years
- Moderate limb injury - deformity, severe laceration, crush
- Limb - altered sensation, acutely absent pulse
- Trauma - high-risk history with no other high-risk features
- Stable neonate
- Child at risk
- Behavioural/Psychiatric:
  - very distressed, risk of self-harm
  - acutely psychotic or thought disordered
  - situational crisis, deliberate self harm
  - agitated / withdrawn / potentially aggressive

**ATS Category 4 - Assessment and treatment start within 60 mins**

**Potentially Life-Threatening**
The patient’s condition may progress to life or limb threatening, or may lead to significant morbidity, if assessment and treatment are not commenced within thirty minutes of arrival. or

**Situational Urgency**
There is potential for adverse outcome if time-critical treatment is not commenced within thirty minutes or
Humane practice mandates the relief of severe discomfort or distress within thirty minutes

**Potentially serious**
The patient’s condition may deteriorate, or adverse outcome may result, if assessment and treatment is not commenced within one hour of arrival in ED. Symptoms moderate or prolonged. or

**Situational Urgency**
There is potential for adverse outcome if time-critical treatment is not commenced within hour or

**Significant complexity or Severity**
Likely to require complex work-up and consultation and/or inpatient management or
Humane practice mandates the relief of discomfort or distress within one hour

**Clinical Descriptors (indicative only)**
- Mild haemorrhage
- Foreign body aspiration, no respiratory distress
- Chest injury without rib pain or respiratory distress
- Difficulty swallowing, no respiratory distress
- Minor head injury, no loss of consciousness
- Moderate pain, some risk features
- Vomiting or diarrhoea without dehydration
- Eye inflammation or foreign body - normal vision
- Minor limb trauma - sprained ankle, possible fracture, uncomplicated laceration requiring investigation or intervention - Normal vital signs, low/moderate pain
- Tight cast, no neurovascular impairment
- Swollen “hot” joint
- Non-specific abdominal pain
- Behavioural/Psychiatric:
  - Semi-urgent mental health problem
  - Under observation and/or no immediate risk to self or others

**ATS Category 5 - Assessment and treatment start within 120 mins**

**Less Urgent**

The patient's condition is chronic or minor enough that symptoms or clinical outcome will not be significantly affected if assessment and treatment are delayed up to two hours from arrival or

**Clinico-administrative problems**

Results review, medical certificates, prescriptions only

**Clinical Descriptors (indicative only)**

- Minimal pain with no high risk features
- Low-risk history and now asymptomatic
- Minor symptoms of existing stable illness
- Minor symptoms of low-risk conditions
- Minor wounds - small abrasions, minor lacerations (not requiring sutures)
- Scheduled revisit eg wound review, complex dressings
- Immunisation only
- Behavioural/Psychiatric:
  - Known patient with chronic symptoms
  - Social crisis, clinically well patient
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Recognition of the Critically Ill Child\textsuperscript{6,7}

**Background information**

Serious illness in a child may not be recognised. This is because children:

- are poor historians
- may manifest non specific symptoms
- may be uncooperative during examination
- may not show significant indicators - but rather may present as subtle signs
- may be presumed to have age specific diseases

**Markers of serious illness in infants under 6 months\textsuperscript{7}**

<table>
<thead>
<tr>
<th>Marker</th>
<th>High Risk</th>
<th>Medium Risk</th>
<th>Five point triage system (AIPDF)\textsuperscript{7}</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Feeding</strong></td>
<td>&lt; 1/2 normal</td>
<td>1/2- 2/3 normal</td>
<td>Fluid intake &lt; 1/2 normal</td>
</tr>
<tr>
<td><strong>Arousal (CNS)</strong></td>
<td>Often drowsy</td>
<td>Occasionally drowsy</td>
<td>Drowsiness</td>
</tr>
<tr>
<td></td>
<td>Decreased activity</td>
<td></td>
<td>Activity decreased</td>
</tr>
<tr>
<td></td>
<td>Convulsion</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Weak cry</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Breathing</strong></td>
<td>Apnoea or cyanosis</td>
<td>Breathing difficulty</td>
<td>Chest wall recession (in drawing)</td>
</tr>
<tr>
<td><strong>Circulation</strong></td>
<td>Skin pale and hot</td>
<td>Skin pale</td>
<td>Paleness (sudden onset, but persistent)</td>
</tr>
<tr>
<td><strong>Fluid output</strong></td>
<td>Green vomit</td>
<td>&gt; 5 vomits in 24 hr</td>
<td></td>
</tr>
<tr>
<td></td>
<td>&lt;4 wet nappies/ day</td>
<td>Less urine than usual</td>
<td></td>
</tr>
<tr>
<td><strong>Faeces</strong></td>
<td>Bloody stool</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Useful signs\textsuperscript{7}**

- Alertness drowsiness hypotonic on examination
- Breathing moderate/severe recession cyanosis wheeze
- Circulation pallor signs of dehydration
- Temperature > 38.5\textdegree C
- Signs of dehydration
- Tender abdomen

**Specific signs\textsuperscript{7}**

- Resp grunt, crepitations, stridor, apnoea tachypnoea >80
- Abdo mass, hernia, distension
- CNS weak cry, abnormal posture
- Skin cold periphery, mottling, bruise, rash
- Pulse > 200
- Urine output < 4 wet nappies
References