Triage and Tagging: the S.T.A.R.T. Method

START is an acronym for Simple Triage and Rapid Treatment, a method of triaging and treating patients that was developed in Newport Beach, California, in the early ‘80’s. The START method had proved to be an excellent and rapid approach to triaging large numbers of patients, and only limited medical training is required to use the method effectively. Under the START concept, the first rescuers to a scene clear it of any walking wounded, simply with a verbal instruction to all mobile survivors that they should walk to a described location. These patients are then moved out of the wreckage area and told to stay put. Later, arriving rescuers will further assess these patients and treat any injuries. Survivors must always be thoroughly assessed when time and resources become available, as they may have hidden serious injuries.

Once the walking wounded are out of the way, rescuers should continue their rapid triage. Patients will be triage tagged at the completion of each assessment. Each patient’s triage assessment should be completed in less than 60 seconds. The areas to be assessed are ventilation, perfusion and pulses, and neurological status.

First Assessment

The first assessment evaluates ventilation. If it is adequate, the rescuer goes to the next item. If ventilation is inadequate, basic attempts to clear the airway, such as debris removal or repositioning the head, will be taken. Depending on the results of these corrective actions, the patient is classified as one of the following:

* No respirator effort: dead/non-salvageable
* Respiration above 30 or patient requires assistance maintaining airway: critical/immediate
* Respiration below 3: go to next assessment
Second Assessment

The next assessment evaluates perfusion. There are two methods used. One is the capillary refill test. The rescuer pinches a lip or a nail bed, holds briefly, then releases pressure. If the area returns to a normal color within two seconds, the patient is classified as **delayed**. If the color does not return quickly, or if it is cyanotic, the patient is classified as **immediate**. When the lighting is poor, or the patient’s race does not permit a capillary refill test, the rescuer can check the patient’s radial pulse. If it is detected, the patient most likely has a systolic blood pressure of 80 mmHg. (It should be noted that only the presence of a radial pulse is tested at this point. Pulse rates are not considered at this point.) Each patient falls into one of the following categories:

* Capillary refill greater than 2 seconds OR no radial pulse: **critical/immediate**
* Capillary refill less than 2 seconds OR palpable radial pulse: go to next assessment

Third Assessment

The third assessment evaluated the neurological status of the patient. Based on this assessment, the patient is placed in one of the following categories:

* Unconscious: **critical/immediate**
* Altered level of consciousness: **critical/immediate**
* Altered mental process: **critical/immediate**
* Normal mental responses: **delayed**

It should be pointed out that the first assessment that produces a “critical/immediate” category stops further triage assessment of the remaining areas. The patient is tagged “critical/immediate” at that time. Only correction of life-threatening problems, such as airway blockage or severe hemorrhaging, would be undertaken before moving to the next patient.
The START process permits a few rescuers to very rapidly triage a large number of patients. Little specialized medical training is required to make these initial triage decisions.

After patients are moved to the treatment area, more detailed assessments can be conducted by paramedics.

### S.T.A.R.T. Triage System

<table>
<thead>
<tr>
<th>Step 1:</th>
<th>Clear the scene of any walking wounded (These patients are considered to be in the MINOR category (Green).)</th>
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</thead>
<tbody>
<tr>
<td>Step 2:</td>
<td>Assess ventilations in the remaining patients:</td>
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<tr>
<td></td>
<td>- No respiratory effort after opening airway: Deceased (Black)</td>
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<tr>
<td></td>
<td>- Respirations &gt; 30: Immediate (Red)</td>
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<tr>
<td></td>
<td>- Respirations &lt; 30: Delayed (Yellow)</td>
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<tr>
<td>Step 3:</td>
<td>Assess perfusion:</td>
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<tr>
<td></td>
<td>- No radial pulse present: Immediate (Red)</td>
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<tr>
<td></td>
<td>- Radial pulse present: Delayed (Yellow)</td>
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<tr>
<td>Step 4:</td>
<td>Assess neurological status:</td>
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<tr>
<td></td>
<td>- Unconscious: Immediate (Red)</td>
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<td></td>
<td>- Cannot to follow simple commands: Immediate (Red)</td>
</tr>
<tr>
<td></td>
<td>- Can to follow simple commands: Delayed (Yellow)</td>
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</tbody>
</table>
Jump START TRIAGE

Physiological differences in children necessitate the need to adapt the standard START triage method to children ≤8 years of age or those victims with the anatomical or physiological features of a child in the age group. The same parameters (R.P.M.) will be utilized with the adaptations indicated.

A. Assess RESPIRATIONS:

1. If respiratory rate is between 15 and 45/min. go to PERFUSION assessment.

2. If respiratory rate is over 45/min or under 14/min, Prioritize RED.

3. If victim is not breathing, open the airway, remove obstructions, if seen, and assess for (1) or (2) above.

4. If victim is still not breathing and no obstructions are present, check a peripheral (radial or pedal) pulse. If peripheral pulse is present, provide five (5) ventilations (approximately 15 seconds) via any type of barrier device. If spontaneous respirations resume, Prioritize RED.

5. If victim is still not breathing, Prioritize BLACK.

B. Assess PERFUSION:

1. Performed by assessing a peripheral pulse.

2. If peripheral pulse is present, go to MENTAL STATUS assessment.

3. If peripheral pulse is absent, Prioritize RED.

NOTE: Any major external bleeding should also be controlled at this time.
C. Assess MENTAL STATUS:

1. Assess the child through AVPU scale. Assess whether the victim is either ALERT, responds to VERBAL stimuli, responds to PAINFUL stimuli, or is UNCONSCIOUS.

2. If the victim is unconscious or only responds to painful stimuli, Prioritize RED.

3. If the victim is alert or responds to verbal stimuli, assess for further injuries, Prioritize YELLOW or GREEN.

**NOTE**: Infants who are developmentally unable to walk should be triaged using Jump START algorithm either during initial triage or in the GREEN area if carried out by a non-rescuer. During triage, if they do not fulfill the criteria of a RED victim and no other outward signs of significant injury, they may be triaged as a GREEN victim.

START Triage system developed by Newport Beach Fire Rescue and Hoag Hospital. Jump Start Triage system developed by Lou Romig, MD (Miami Children’s Hospital).