Name: _____

SCC#: _____

INGALLS HOSPITAL
EMERGENCY MEDICAL SERVICES

START System ~ Study Book
February 2007

Reading Assignment: Attached START handout.

1. The triage portion of START has 3 components. List them.

2. Define the Golden Hour.

3. START triage assessments should take no longer than _____.

4. During initial triage, which two interventions may be performed, if needed.

5. START is an acronym for:

   _____.

6. RPM is an acronym for: _____.

7. List the RPM assessments for each:

   Minor (Green)

   Delayed (Yellow)

   Immediate (Red)

   Deceased (Black)

8. Compare and contrast the START and JumpSTART Triage.

9. Briefly discuss the functions of the following:

   - Central Treatment Area

   - Incident Command Center

   - Immediate & Delayed Patients

   - Standard of Care

START (Simple Triage and Rapid Treatment)

First Responders, Emergency Medical Technicians and Paramedics are trained to handle emergencies. You know how to quickly assess a patient and intervene. But even the best emergency provider is easily overwhelmed when there are multiple patients who all need emergency care.

START (Simple Triage and Rapid Treatment)

The START system, developed by Hoag Hospital and the Newport Beach Fire Department (Newport Beach, CA), helps prepare emergency personnel to quickly organize their resources to handle multi-casualty emergencies. Using START, various agencies and individuals assume predetermined roles in managing the emergency, on-scene personnel quickly evaluate the situation and call in the appropriate extra resources and assign them specific tasks. Because of the planning and training that are the core of the START system, agencies and individuals know what they are expected to do when they arrive at the scene.

The triage portion of START, which is the focus of this training program, relies on making a rapid assessment (taking less than a minute) of every patient, determining which of four categories patients should be in, and visibly identifying the categories for rescuers who will treat the patients.

Triage
The concept of triage is simply a method of quickly identifying victims who have immediately life-threatening injuries AND who have the best chance of surviving so that when additional rescuers arrive on scene, they are directed first to those patients.

Golden Hour
Golden hour refers to a concept that a trauma patient has the best chance for recovery if he or she can get to Advanced Trauma Life Support within one hour from the time of the injury. Obviously, those who are most seriously injured have the least time. When there are multiple victims, the Golden Hour can slip away because there aren't enough rescuers for each victim.

The START triage system, relies on making a rapid assessment (taking less than a minute) of every patient, determining which of four categories patients should be in, and visibly identifying the categories for rescuers who will treat the patients.

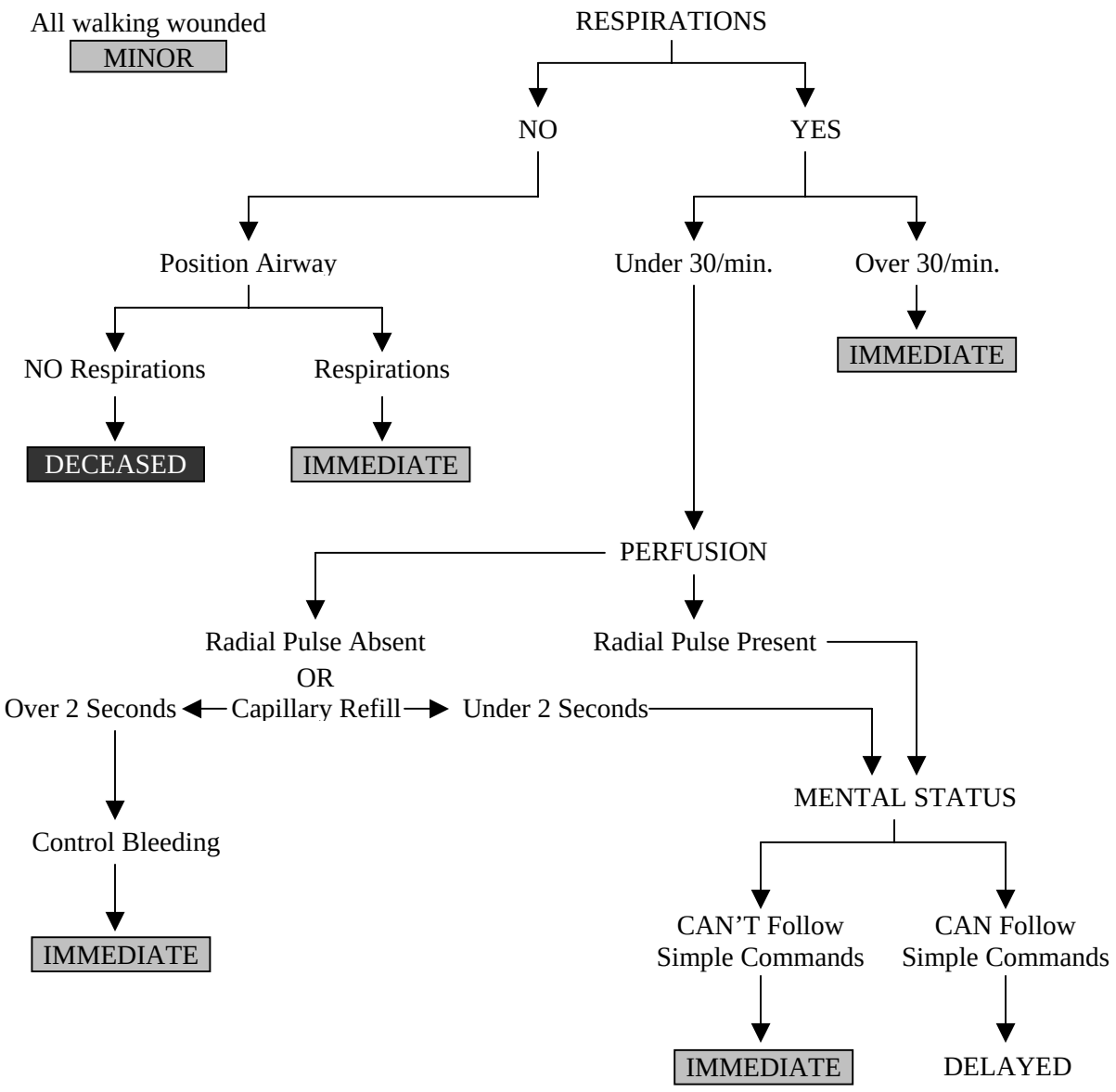
If you are the initial START rescuer, you DO NOT stop to do other than the most basic intervention. If you attempt to treat every patient before completing the triage, you cannot assess the rest of the patients and identify the top priorities.

Remember that in a serious disaster, it is unlikely that you can save all the victims. The important thing is to work together with the other rescuers to save as many patients as you can. START gives you the best chance of doing that.

START - FLOWCHART

The START / JumpSTART flowchart is a quick way to learn the system. As you move through the patient assessment, *sequentially* evaluate the current status for RESPIRATIONS, PERFUSION, and MENTAL STATUS (RPM). You either assign the victim a classification or you move to the next level of the flowchart.

Detailed Flowchart

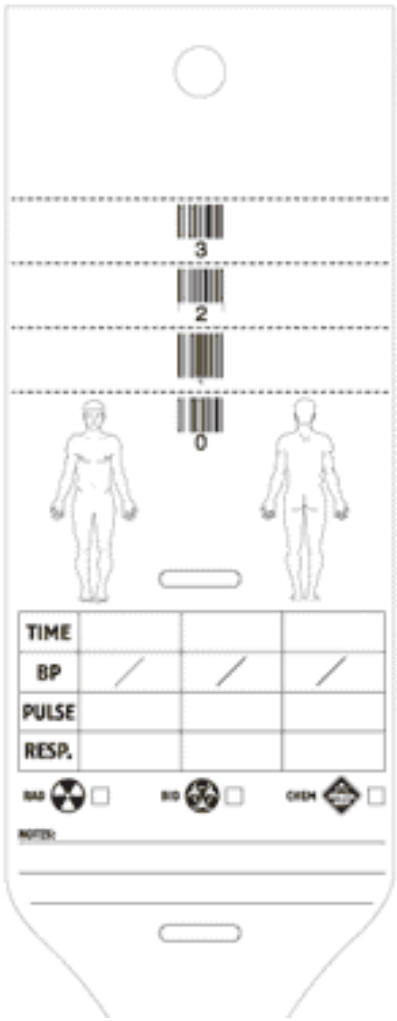


START – The TRIAGE TAG

The triage designation is based on a color system. You place a triage tag on each victim and tear off the colors until the color at the bottom matches the victim's classification.

The person doing the initial START triage does NOT fill out the tag. Rather, he/she only tears off the color-strip and attaches the tag to the patient. We suggest, that person also write the time and initial the tag.

The actual filling-in-the-blanks of the tag happens either in the treatment area, or in the ambulance, by the 2nd stage personnel.



START – Managing the Scene

Managing the scene with multiple patients can be frustrating and difficult. These steps will help you systematically triage and treat each patient. They also will give you information to help you determine the number and types of additional rescue personnel, equipment and transport vehicles you need to manage the crisis.

It is important to recognize that you are not abandoning patients by assigning them the Delayed or Minor categories. They are being directed to the rescuers or facilities that have been assigned to handle those patients. The rescuers who are managing the Minor and Delayed patients will be reassessing them and will re-assign them to the Immediate category if they deteriorate.

Immediate – Red

When you arrive at an emergency where someone has used the START triage system, your first priority is to find and treat the *IMMEDIATE* patients. These patients are at risk for early death – usually due to shock or a severe head injury. They should be stabilized and transported as soon as possible.

Delayed – Yellow

Patients who have been categorized as *DELAYED* are still injured and these injuries may be serious. They were placed in the *DELAYED* category because their respirations were under 30 per minute, capillary refill was under 2 seconds and they could follow simple commands. But they could deteriorate. They should be reassessed when possible and those with the most serious injuries or any who have deteriorated should be top priorities for transport. Also, there may be vast differences between the conditions of these patients. Consider, for example, the difference between a patient with a broken leg and one with multiple internal injuries who is compensating initially. The second patient will need much more frequent re-assessment.

Minor – Green

Patients with *MINOR* injuries are still patients. Some of them may be frightened and in pain. Reassure them as much as you can that they will get help and transport as soon as the more severely injured patients have been transported. Any of these patients also could deteriorate if they had more serious injuries than originally suspected. They should be reassessed when possible.

Deceased – Black

Check with your local protocols about whether patients marked DECEASED should be moved. Some systems don't want patients moved until a coroner/medical examiner is on scene, unless they are interfering with rescue attempts.

The mnemonic RPM will help you categorize each patient.

START – Managing the Scene (Continued)

Remember this simple formula to guide your START assessment. RPM stands for:

RESPIRATION
PERFUSION
MENTAL STATUS

Sequentially use this assessment system for every patient.

Entering the Scene
As always, make sure the scene is safe for you to enter. If it is not, wait until it has been made safe.

Next, ask those who are not injured or who have only minor injuries to identify themselves. Tag those with minor injuries as *MINOR.*

Minor injuries . . . . . **TAG MINOR**

Ask several uninjured victims to stay close to assist you, direct the others to a designated spot away from the immediate scene to wait for additional personnel.

Respiration
First, determine if the patient is breathing. If yes, immediately check the respiration rate.

If not, reposition the patient. If the patient does not start breathing spontaneously, DO NOT start CPR.

Patient not breathing after repositioning . . . . . **TAG DECEASED**

Move on to next victim.
(Not starting CPR may be the hardest thing you must do at a multiple casualty scene. But if you perform CPR on one patient, many others may die.)

C-Spine injury
You will have to position the airway without manually stabilizing the cervical spine. This is counter to what you have been taught and may result in worsening the cervical spine injury. But if you don't reposition the victim immediately, the person will die in the field. You won't have the personnel to carefully stabilize the C-spine and you can't afford to let the other victims dies while you take time to do it yourself.

If the patient begins breathing spontaneously after repositioning, tag the person *IMMEDIATE* and move on. If necessary, ask an uninjured victim to help maintain the open-airway position.

Patient begins breathing after repositioning . . . . .**TAG IMMEDIATE**

START – Managing the Scene (Continued)

If the victim is breathing when you approach, but has a respiratory rate of more than 30, tag IMMEDIATE and move on. Don't take time to formally count the respirations. If the rate seems too fast, tag the victim IMMEDIATE and move on.

Respiratory rate >30 . . . . . **TAG IMMEDIATE**

Perfusion

If you can feel a radial pulse, move on to the Mental Status assessment.

If you can't feel it, tag the patient *IMMEDIATE*, have an uninjured victim put direst pressure on any visible, serious bleeding and move on to the next patient.

No radial pulse . . . . . **TAG IMMEDIATE**

Next check for capillary refill. If capillary refill is more than 2 seconds, tag the patient *IMMEDIATE*, have an uninjured victim put direct pressure on any visible, serious bleeding and move on to the next patient.

Capillary refill >2 seconds . . . . . **TAG IMMEDIATE**

If capillary refill is less than 2 seconds, move to MENTAL STATUS.

Mental Status

If the victim is unconscious or can't follow simple commands, tag them *IMMEDIATE* and move on to the next victim.

Unconscious, can't follow commands . . . . . **TAG IMMEDIATE**

If the victim can follow simple commands, tag them DELAYED and move on to the next victim.

Can follow simple commands . . . . . **TAG DELAYED**

BOX 4-3 START Triage – cont'd

START uses three simple assessments to identify those victims most at risk to die from their injuries. Typically, the process takes 30 to 60 seconds per victim. START requires no tools, specialized medical equipment, or special knowledge.

HOW DOES IT WORK?
The first step is to direct anyone who can walk to a designated safe area. If the victims can walk and follow commands, their condition is categorized as "minor," and they will be further triaged and tagged when more rescuers arrive. This now leads to a smaller group of injured victims remaining for rescuers to triage. The mnemonic "30-2-can-do" is used as the START triage prompt. The "30" refers to the patient's respiratory rate, the "2" refers to capillary refill, and the "can-do" refers to the ability of the patient to follow commands. Any victim with respirations fewer than 30 per minute, capillary refill of less than 2 seconds, and the ability to follow verbal commands and who can walk is categorized as a "minor" patient. When victims meet these criteria but cannot walk, they are categorized as "delayed." Victims who are unconscious or have rapid breathing or who have delayed capillary refill or absent radial pulse are categorized as "immediate." Any of these physiologic abnormalities can be caused by serious injuries.

Respirations	30
Perfusion	2
Mental status	CAN DO

While at the victim's side, two basic lifesaving measures can be performed: opening the airway and controlling external hemorrhage. Bystanders or the 'walking wounded" can be directed by the rescuer to maintain these simple interventions. For those victims who are not breathing, the rescuer should open the airway, and if breathing resumes, the victim is categorized as "immediate." No cardiopulmonary resuscitation (CPR) should be attempted. If the victim does not resume breathing, the victim is categorized as "dead."

Retriage is also needed if lack of transportation prolongs the time the victims remain at the scene. Using START criteria significantly injured victims may be categorized as "delayed." The longer they remain without treatment, the greater the chance their condition will deteriorate. Therefore, repeat evaluation and triage are appropriate over time.

START – Glossary

Central Treatment Area	In the setting of Multi-Casualty Incident, immediate and delayed patients who are awaiting transport, should be moved to a centralized treatment area. This results in a more efficient use of medical supplies and personnel.
Delayed	Second priority in patient treatment. These patients require aid, but injuries are less severe. These patients may have a wide range of injuries. They should receive more thorough secondary assessment when in a treatment area.
Incident Command System	A flexible organizational structure, which provides a basic expandable system for handling patients from a multi-casualty incident.
Immediate	A patient who requires rapid assessment and medical intervention for survival.
Minor	These patients' injuries require rudimentary first-aid and FREQUENT reassessment.
S.T.A.R.T.	Acronym for "Simple Triage and Rapid Treatment." This is the initial triage system that has been adopted by F.I.R.E.S.C.O.P.E.'s Multi-Casualty Branch of the Incident Command System.
Standard of Care	Level of treatment to be rendered to patients.
Triage Tag	A tag use by Triage personnel to identify and document the patient's medical condition and treatment.

Combined START/JumpSTART Triage Algorithm