Casualty simulation combines realistic make-up of injuries (moulage) with the acting of symptoms in an appropriate setting. Not only should the simulated injury be treated appropriately and efficiently, but also the patroller’s natural feelings and reactions under various stress situations should be considered for optimum results.

Quite a few scouts are not prepared to handle the sights and sounds of horror that can accompany a serious accident or major trauma situation. They are not prepared because they have not seen them before. Seeing blood slowing dripping from a simulated open fracture and hearing the screaming of the victim certainly makes more of an impression than if the victim calmly says, "I hurt my leg right here and it hurts real bad." Research and observation has shown that critical incident stress can occur to many new medical responders who have never been exposed to traumatic situations.

CLOTHING!

Have the victims and rescuer use OLD CLOTHING!!! DON’T WEAR SCOUT UNIFORMS! Use old clothing than can be cut/torn to expose injuries. By having the scouts who are performing the first aid also wear old clothes, you will save a few uniforms and some upset parents. Burns can be enhanced by carefully singing the edges of "burned" areas with a lighter or torch. Pieces of burned cloth can be attached to "burn" skin areas with liquid latex described below. Be sure to have Scout "victims" wear gym shorts or swim trunks under clothing in case it is "cut away" by rescuers.

Items to have in moulage kit:
Note: Most come off with soap and water. I recommend also having dish soap to wash off greasy stuff. It works better than regular soap. Get many items at dollar stores, Halloween time is great!

- Cold cream/Vaseline
- Fake Skin
- Blue and gray lipstick/makeup
- Alka-Seltzer
- Rice – Used for maggots
- Scissors
• Dried chicken or other bones
• Fake blood mix
• Eye liners – Brown and black
• Drop cloths
• Oatmeal packets
• Black tempa paint
• Spray bottle for water
• Tissue paper
• Fake Eyeballs
• Fake Impaled objects
• Medical alert necklaces or bracelets

Fake Skin Putty

One of the mainstays that you will need is skin putty. There are several ways to do this. You can purchase plumbers putty-which is green. Or you can make a skin colored putty yourself. Take 1 box of cornstarch, add to that 1 tablespoon of cocoa (not chocolate) and add 1 large container of Vaseline. Put all the ingredients into a large ziplock type bag. Squish it together until mixed. This stuff comes off cleanly, can be reused and is cheap to make. You can change the color of the skin by adding more or less cocoa.

Homemade Liquid Blood-2 recipes

1) Mix together 16 ounces of liquid starch with 3 ounces of RED food coloring and 1 ounce of YELLOW food coloring.

2) 1 Large container of Vaseline mixed with 1 bottle of red food coloring. This works great for all kinds of injuries and cleans off pretty easily.

For "blood pumps" where you want to have spurting blood to simulate arterial bleeding. We get outdated IV bags and blood pumps (new) from local hospitals. Fill the bags with the "blood" mixture.(Bags are sterile and uncontaminated, so pose no risk of infection. Blood pumps must of course be new to be safely used.) Conceal the bags inside clothing and run tubing to the blood pump down a sleeve to the victim's hand so he can pump the blood to his "wounds". This is a real "show stopper" when the "rescuers" arrive and see a stream of "arterial bleeding" coming from a a major "wound."

Sweat
People in shock break into cold sweats, which should be simulated. To do this, combine three parts glycerin (available at drug stores) with one part water in a dropper or spray bottle. You can enhance the effect if you apply a thin layer of cold cream before you spray your mixture on the patient. You can also just use a cotton ball dipped in the mixture if you don’t have a spray bottle.

"Old Yeller" Anyone?

Excessive saliva can be created if you will go to your pharmacy and purchase empty capsules. Fill the capsule with two grams of tartaric acid and two grams of bicarbonate of soda. Your patient can hold the capsule in their mouth until the appropriate time and then bite the capsule. This will produce a frothy mixture that they can slowly drip from their mouth. If you really want to be creative, use red flavored Jello in the capsules and you will get a great blood stained effect. You can also use alka-seltzer tablets.

Bruises

Use bruise-colored makeup. Apply like women’s makeup using painter-type brushes or make-up pads. Remember the more purplish, the worse it looks.

Vomit

As unpleasant as it sounds, vomitus can easily be simulated with the use of instant flavored oatmeal such as raisin and cinnamon oatmeal, or any flavored oatmeal with a small amount of water added. You can also have the the victim have some corn chips partially chewed and then spit them up. The substance of vomitus largely depends on the stomach content, but simulation can produce the general character.

Scrapes

Using the bruising colors, take a baby bottle brush and scrape onto skin area.

Nose Soot

Use black power makeup on a brush and touch up under nose, mouth and eyes for inhalation effect from smoke, or explosions etc.

Amputated Extremitites

Use "baggy" jeans or shorts, especially for simulated amputations. Have the "victim" place his foot back up the pant leg to simulate a "stump" and use a store mannequin
"leg" to simulate the amputated member. Commercial moulage can be placed on the knee to enhance the realism or use molding wax and grease paint to simulate one. Arterial bleeding pumps here are especially effective.

**Burns**

For burns, there are 2 different ways to create the effect needed. 1) use theatrical liquid latex. Paint a thin layer on the skin and let it dry until "tacky" then pull up selected areas to create "blisters." Then use a mix of glycerin and water to simulate lymph flow from the "blisters." Use theatrical grease paint to add black and red highlights. The latex has a finite life, so keep it capped between uses, don't let it freeze, and buy it in small bottles. It is a little "pricey" so small quantities are a good idea. 2)

**Eye Injuries**

Use a ping pong ball cut in half and color the pupil and iris onto the ball. It sounds sort of fake, but the kids can really gross out because they aren’t expecting it.

**Impaled Objects**

Take a stick, knife handle or other object of your choice and attach to an old belt. Then strap the belt to the victim and apply fake blood to the area. Remember, impaled objects are NOT to be removed but secured.

**Shock**

Use gray pancake makeup to simulate shock; apply evenly on the face. Use blue make up to simulate cyanosis on the lips, apply lightly. You can also use glycerin and water mix in a spray bottle to simulate diaphoresis (perspiration) around the lips and forehead.

**Wounds**

Fake skin putty is great for simulating deformity such as fractures and swelling. mold it to the shape desired and smooth it to the skin. To simulate a wound, use a table knife and then color with red vaseline fake blood mix. Use blue and red makeup mixed to simulate large bruises on the abdomen and chest, or grease paint thinly applied with some gray makeup works too.

**Open Fractures**

Open fractures can be simulated with the fake skin and "chicken bones" or carved wood fragments painted white. Paint the area with fake blood.
**ACTING/SIMULATIONS**

The "acting" is another major part of the exercise. Train Scouts on how to react with symptoms, pain, changes in level of consciousness/responsiveness, etc. Avoid "over-acting" since this tends to turn the scenario into a giggling match especially with younger scouts. Remind them that seriously injured patients are often very quiet or withdrawn due to shock and should be of greatest concern. Noisy, active patients are often in fairly good shape unless they have a closed head injury and are acting inappropriately due to changes in mentation.

**MASS CASUALTY EXERCISES**

Organize your "victims" by trauma/medical triage codes:
- **Red** for urgent/life threatening injuries
- **Yellow** for serious
- **Green** for "walking wounded"
- **Blue** for "unsalvageable"
- **Black** for deceased

Try to set a reasonable "balance" of a few "reds," more "yellows," and lots of "greens," a few "blues" and a few "blacks." Train your triage teams to first code all victims, then move the victims when stable, to the transportation areas. Reds and some yellows will have to go by stretcher or backboard; greens can usually walk to their area. Blues and Blacks are left at the scene until the "coroner" arrives to approve their "removal."

Then write up index cards with a description of the nature of injuries for each victim, what vital signs/symptoms they are to have and where they are to be located in the exercise. As they come through the makeup line, they can be fitted/made up for the appropriate injuries, and coached on their symptoms, then located at their spot in the exercise.