CASUALTY SIMULATION:

Realism in Training Through Moulage - Advanced Techniques

2013 EMS Symposium

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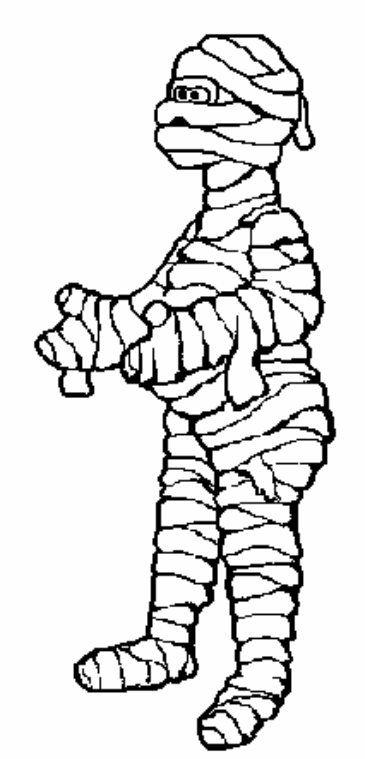


Course Overview

- Instructor Introductions:
  - Bob Ryalls
- Student Introductions
- Life Safety Briefing
- Course Objective

Course Objective

- Upon completion of this course the student will be able to safely create realistic Gel Effect wounds.

Infection Control, Allergies & Safety Considerations

Gel Effects Safety Considerations

- **Never** place moulage make-up or Gel Effects on broken, abraded skin or open wounds. e.g. severe acne, psoriasis, etc.

- **Always** check the temperature of the Gel Effects Before applying Gel Effects to skin. The temperature should be warm to the touch – not hot enough to actually burn.

Infection Control & Allergy Considerations

- 1. Ask patient if they have any allergies or sensitivities – specifically ask about latex allergies.
- 2. Don't use make up on open skin, rashes or severe acne. Cover all open wounds.
- 3. Single use for stipple, Q-tip & make up sponges.

Infection Control & Allergy Considerations

- 4. Wash hands before applying anything to another person. Hand wipes or hand sanitizer can be used when running water is not available.

- 5. Replace make up brushes on a regular basis and make sure to clean after each exercise.

- 6. Cleaning and sanitizing solutions, etc.

When or When NOT to Use Gel Effects

ADVANTAGES

- Reusable
- Can be prepared in advance
- Can be used in all temperatures

DISADVANTAGES

- $$$
- Must be made in advance
- Requires electricity

Component Review

- Four Components of Casualty Simulation
  - Planning
  - Moulage
  - Staging
  - Symptomatic Acting

Planning

Before you can do the fun stuff, you need to do a little homework. You must PLAN what you want to do so that on the actual day of the exercise, everyone knows what needs to be done. Some things you must consider in this phase is:

- What type of scenario are you dealing with
  - School shooting
  - School bus/commercial bus accident
  - Structure fire
  - Hazardous materials incident
- Number of patients
- Location

Moulage

The actual moulage application is the most exciting part of the process since it allows your imagination to have creative license, within reason of course. Remember, your "victims" injuries must appear realistic if they are going to be believable.

To mix these two components together we must have a better understanding of the techniques used in applying moulage. These components are **Blending, Feathering, and Highlighting.**

Moulage

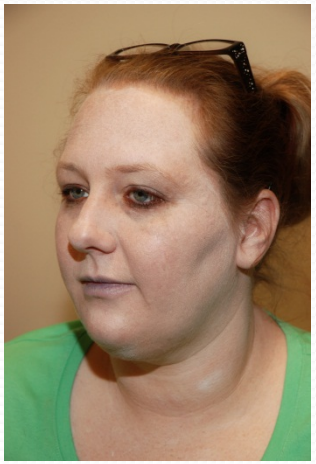
Blending

- mixing or combining two or more types of makeup to achieve a particular type of result.

Usage:

Bruise - reds and blues are blended

Shock – blue and white are blended



Moulage

Feathering: smoothing the edges of modeling material as it adheres to the skin; blending the moulage colors into the natural skin color of the victim.

Usage: lacerations, fractures

Moulage

Highlighting: darker color placed beneath a lighter color to give the impression of depth or shadow.

Usage: lacerations, fractures, gunshot wound

Staging

- Creates the illusion of a serious injury or illness
  - appropriate to the contributory cause.
  - one of the most important things to be done to complete the picture of casualty simulation.
  - provides the background of the story leading up to an incident.

- a matter of common sense and simple engineering
  - can be graded to meet any requirement
    - a finger cut on broken glass
    - a fractured spine in a mangled piece of metal that was once an automobile.

- Doesn’t have to be expensive and/or complicated.
  - it can be as simple as a piece of orange peel on wet pavement.

Staging

- Realism in any incident staged is best achieved when it is planned with an element of surprise.
  - requires the full cooperation of all those involved in the exercise.
- Staging is accomplished in the following ways:
  - 1) General appearance of the victim
    - (ex. torn or burned clothing)
  - 2) Placement of victim
    - (ex. mud puddle, bushes)
  - 3) Embedding of foreign objects
    - (ex. glass, dirt, bone fragments, knife handle)
  - 4) Use of props
    - (ex. ladder, wire, vehicle)

Staging

- Additional factors, which must be considered when planning an exercise, are:
  - 1) Location: outdoors/indoors (weather plays major role)
  - 2) Choice of additional props: appropriate to the scenario (history of the event)
  - 3) Number of casualties: appropriate to the scenario
  - 4) Types of injuries: appropriate to the type of incident
  - 5) Victim's clothing: relative to the scenario and injury
  - 6) Pre-Staging: advance notices, or sound effects relative to the scenario

Staging

- Additional factors,
  - 7) Assistance: ensuring sufficient assistance in the planning, staging, and operation of the exercise
  - 8) Assistants: to be appropriately dressed in relation to their assignments
  - 9) Simulators/Moulage Team: allow adequate time for preparation of injuries
  - 10) **CAUTION**: Exercise extreme caution in staging disaster scenes. Bear in mind the **SAFETY** factor...you do not wish to create a real disaster or injure someone.

SYMPTOMATIC ACTING

- It is not enough to just deal with an injury; one must also lean to deal with the emotional trauma and stress of the victim and those around him. The signs and symptoms of serious injury which can be portrayed by the victim are as follows:
  - 1) Facial expressions
  - 2) Breathing rates
  - 3) Actions of limbs or trunk
  - 4) Attitude (psychological response)
  - 5) History (information relayed to the EMT, MD by patient.
    - Must be relative to the injury and scenario.)

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Review Basic Skills

- Create Shock

- Create a Bruise

- Create a Laceration

- Create a Burn

Some Examples

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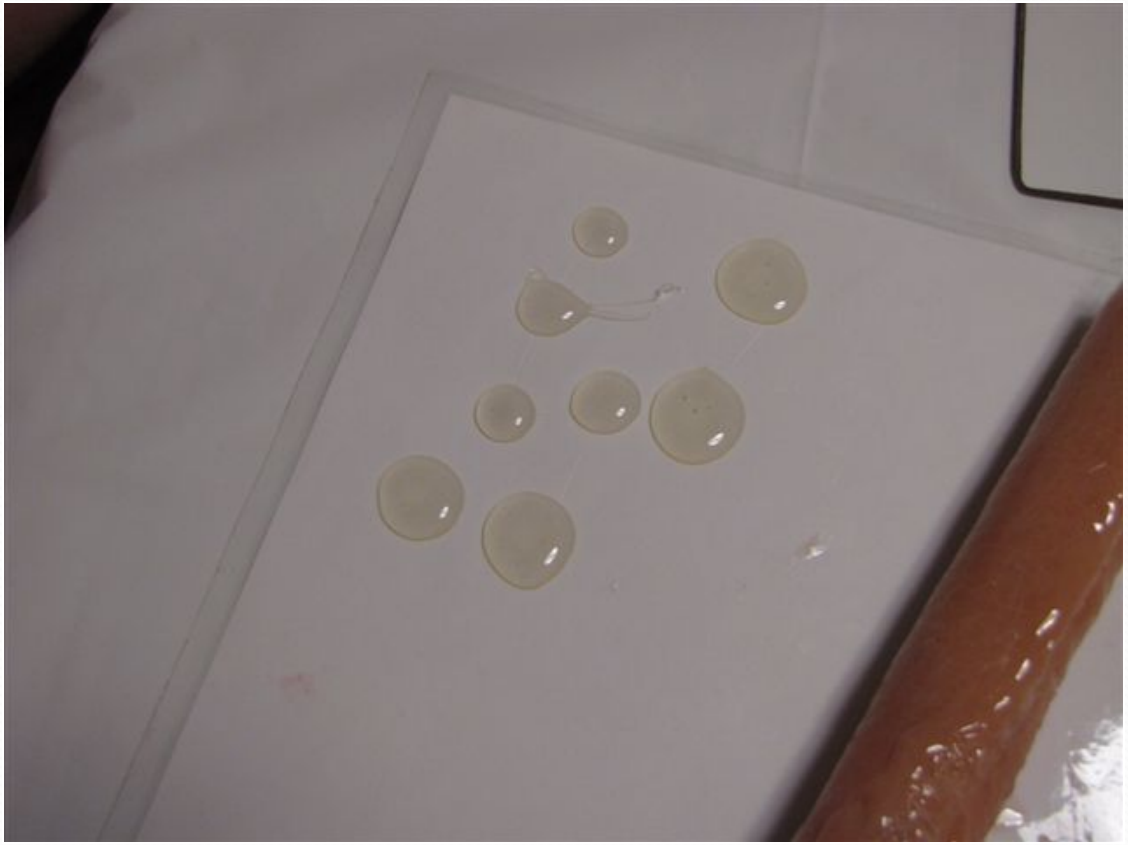
Some Examples

Wound Creation – Molds

- Purchased Molds: Gunshot wounds & lacerations
- Homemade Molds
- Instructor demonstration
- Student practice

Blisters



Buckshot (Gunshot) Wound

Let's Get Creative!!

Create a Duplicate

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Degloving Injury

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EMS

ONE MISSION. ONE TEAM.

Remember the “Good Old Days”?

Thank you and enjoy the rest of the 2013 EMS Symposium