

Welcome to Obvious Clinical Signs of Irreversible Death. This training program is intended for licensed nurses.

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Upon completion of this training, nurses will recognize the obvious clinical signs of irreversible death as part of the assessment process for an unwitnessed arrest in patients without a DNR.



Before beginning please read the important message.

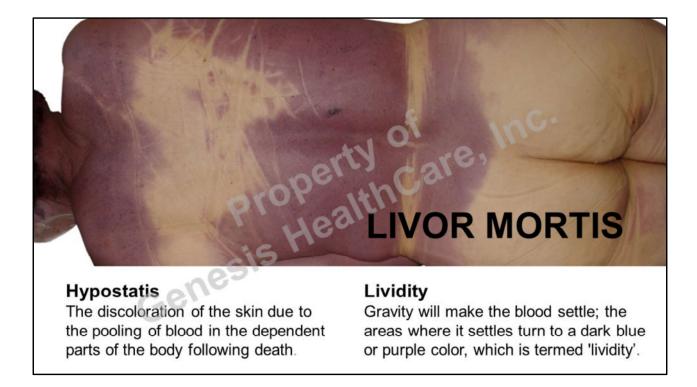
Nurses will initiate CPR unless a valid Do Not Resuscitate (DNR) order is in place; obvious clinical signs of irreversible death (e.g. rigor mortis, liver mortis, injuries incompatible with life) are present.



So what are obvious clinical signs of irreversible death?

- 1. Liver Mortis: is lividity or pooling of blood in dependent parts of the body.
- 2. Rigor Mortis: Hardening of the muscles or rigidity
- 3. Injuries Incompatible with Life: These include decapitation, transection or decomposition

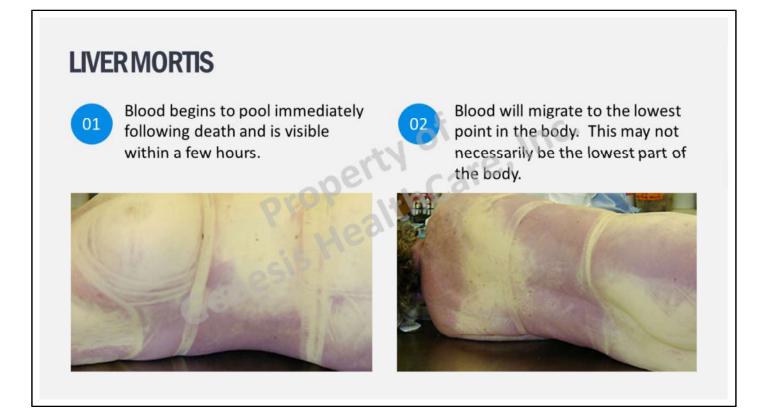
We'll now review each of these in a bit more detail.



We'll begin with livor mortis.

Livor mortis, also known as hypostasis, is the discoloration of the skin due to the pooling of blood in the dependent parts of the body following death.

The blood pools because the heart can no longer circulate the blood. Gravity will make the blood settle and the areas where it settles turns to a dark blue or purple color, which is termed 'lividity'.

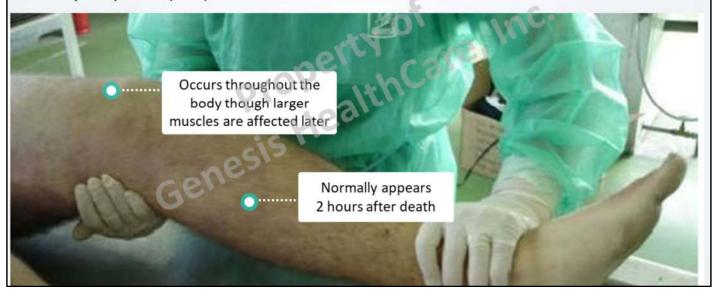


With livor mortis, the blood begins to pool immediately following death and is visible within a couple of hours. After the first two hours, the skin is bluish and blotchy. After five or six hours, the blotches become confluent and the skin will turn white when applied with pressure. After ten to twelve hours, the livid color remains even when pressed.

It is important to note that the blood will migrate to the lowest point in the body that it can travel. This may not necessarily be the lowest part of the body. For instance, if the victim was a hanging victim, the lividity will show in the feet, fingertips and earlobes. If the body is found in a supine position, the lividity will be found in the parts of the body touching the ground/surface.

## **RIGOR MORTIS**

Stiffening of the body after death because of the loss of Adenosine Triphosphate (ATP).



We'll now review rigor mortis.

Rigor Mortis is the stiffening of the body after death because of a loss of Adenosine Triphosphate (ATP) from the body's muscles. ATP is the substance that gives energy to the muscles. Without this, the muscles become stiff and inflexible.

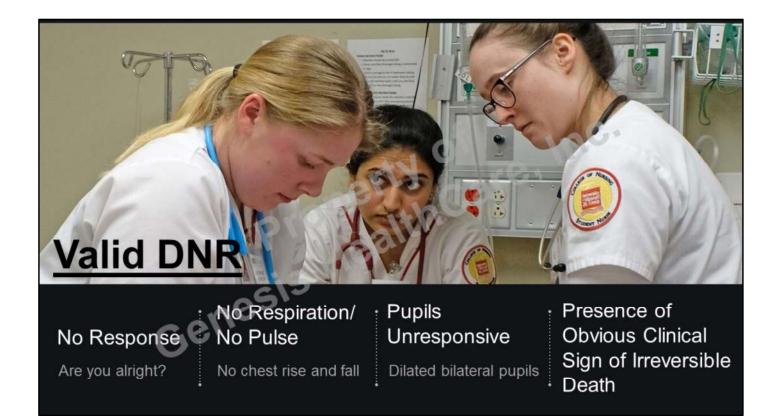
Rigor Mortis begins throughout the body at the same time but the body's smaller muscles such as those in the face, neck, arms and shoulders - are affected first and then the subsequent muscles throughout the rest of the body; those which are larger in size, are affected later.

Rigor normally appears within the body around two hours after death.



There are also other conclusive signs of death which include injuries incompatible with life such as those from catastrophic injuries such as decapitation and transection.

Decomposition of the body is also a conclusive sign of death.



The nurse is responsible and accountable for his or her nursing judgments, actions and competency with regard to the initiation or withholding of CPR in accordance with accepted standards of practice.

In the event of an unwitnessed patient cardiac arrest, the nurse is expected to immediately conduct a sequential assessment of the patient to initiate CPR without delay unless there is a <u>valid DNR</u> order or **all** of the clinical signs listed on the slide are present

Assessment of the patient must be conducted to support the withholding of CPR

- No response when asked, "Are you all right?"
- No respirations after opening airway with head tilt-chin lift maneuver
- Observe for chest rise and fall for at least 30 seconds pulse ox is not appropriate
- No pulse at carotid or auscultation of apical pulse for at least 30 seconds
- · Dilated bilateral pupils unresponsive to light

## Presence of at least one conclusive sign of death

