Cooling a Patient After Cardiac Arrest: Induced Hypothermia

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What is a Cardiac Arrest?

When a person stops breathing and their heart stops beating, this is called a "cardiac arrest." It is a medical emergency.

The longer a person's heart has stopped, the lower their chance of survival.

What is "Induced Hypothermia?"

Induced hypothermia is a therapy for some patients who survive a cardiac arrest that has lasted 3 minutes or longer.

"Hypothermia" means having a low body temperature. "Induced hypothermia" means that the healthcare team lowers the body temperature, on purpose, to help your family member survive their cardiac arrest.

Induced Hypothermia:

- Involves cooling a patient to a core temperature of 32°C to 34°C within 4 hours of the cardiac arrest.
- The patient will remain cooled for 12 to 24 hours.
- It can only be performed in an intensive care (ICU) setting by a specially trained medical team.
- The medical team provides continuous monitoring to obtain the best possible outcome for your family member.

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How does induced hypothermia help your loved one?

Hypothermia lowers the body's need for oxygen and energy. As a result, there is more oxygen available in the blood for the body, and vital organs.

Induced hypothermia has been proven to decrease brain damage if started as soon as possible after a cardiac arrest of more than 3 minutes.

What should I expect?

- Your family member will be wrapped in a mechanical cooling blanket that changes the level of cooling based on the patient's core temperature.
- Your family member will be given medication to sleep and to keep them as comfortable as possible.
- A ventilator (breathing machine) will help them to breathe.
- Intravenous (IV) medications will be given through a large IV line.
- They will be watched closely on a screen by the bedside and at the nursing stations.

What are the risks of Induced hypothermia?

1. Hypothermia may make the patient more prone to infection. This is because when the body is cool, the immune response (our body's "defense" system) is lowered. The healthcare team will do everything possible to prevent infections from happening.
2. It may make some patients more prone to bleeding. We will watch your family member closely for any signs of this.

Keep in mind that evidence shows that the benefits of induced hypothermia, in many patients, outweigh the potential risks.

If at anytime during the cooling process the risk to the patient should outweigh the benefits, the doctor will stop the cooling process.

What should I expect after the cooling therapy is done?

At the end of the cooling process, the doctor will talk to you (and your family member when possible) about further treatment and care options. You will be able to have all your questions answered. Any plans for the care of your loved one will be made together with you, take into account the patient's previously expressed wishes, if any, and, his or her best interests.

If you have any questions about Induced hypothermia, please talk to your doctor or nurse.