Code Status, Resuscitation, DNR... What does it all mean?

"Code Status" essentially means the type of emergent treatment a person would or would not receive if their heart or breathing were to stop. The topic of code status can be confusing to many. Too often, code status is not discussed fully until there is a crisis with one's health status. At that time, the information can seem even more confusing or a person may not be able to fully communicate their personal wishes related to treatment options. That is why it is important to have some basic understanding of these treatment choices and to ask questions before a crisis occurs. We have provided content below to help get you started with understanding code status.

What is a Hospital Code Status?

All patients who are admitted to a hospital are assigned a code status. As stated above, "Code Status" essentially means the type of emergent treatment a person would or would not receive if their heart or breathing were to stop. This treatment can be summarized as four categories (commonly referred to as resuscitative efforts), which include:

- Cardiopulmonary Resuscitation (CPR) includes providing breaths and chest compressions. Simplified, this is an attempt to "*physically jumpstart the heart*."
- Defibrillation provides an electrical shock via pads or paddles. Simplified, this is an attempt to *"electrically jumpstart the heart."*
- Specific Cardiac Arrest Medications Medications indicated for an event when a person's heart has stopped beating to sustain life. Simplified, this is an attempt to *"chemically jumpstart the heart."*
- Intubation and Mechanical Ventilation involves placing a breathing tube that can be connected to a ventilator (breathing machine), if a person cannot breathe on their own.

Since a cardiac arrest (heart stops) or respiratory arrest (breathing stops) can happen unexpectedly, it is best to be prepared ahead of time. For this reason, your health care team may ask your wishes regarding code status upon admission and/or periodically during your stay as your condition changes. A code status decision can be changed at any time.

Choosing Your Code Status

As with any treatment options, the expected outcome after a cardiac or respiratory arrest can be different depending on the person, severity of illness, and cause of arrest, as well as other factors. That is why it is important to discuss options before a crisis occurs and as a condition changes or lingers. When considering treatment options, be sure to understand the potential outcome(s) of the treatment.

Outcomes of Resuscitation

While resuscitative efforts can restart someone's heart or breathing, the efforts can also cause harm or only prolong dying. Success of resuscitative efforts, unlike what is shown on television, is fairly low. In 2016, survivor rate for adults after a cardiac arrest were:

- Out-of-Hospital Arrest: 12%*
- In-Hospital Arrest: Less than 25%*

*It is important to note, survival rates are lower for patient with advanced age, cancer, sepsis, renal failure or liver failure. More than age, the survival rates for patients with a chronic illness or advanced illness average 5% and less than 1% respectively.

In addition, more than 40% of survivors are discharged with a significant decrease in their functional ability.

Level of Code Status

While resuscitative efforts are standardized from the American Heart Association, the terms used to define code status vary from institution to institution. The following levels are usually available:

- Full resuscitation all resuscitative and aggressive curative treatment are provided.
- Do Not Attempt Resuscitation (DNAR) or Do Not Resuscitate (DNR) order designating that in the event of a cardiac or respiratory ARREST, resuscitation will not be attempted. All other aggressive treatment desired will be provided as appropriate.
- Comfort Measure Only In the event of a cardiac or respiratory ARREST, ALLOW NATURAL DEATH. Do NOT attempt resuscitation (CPR, Cardiac Arrest Medications, Defibrillation, Intubation). AGGRESSIVE TREATMENT WILL BE DISCONTINUED OR NOT BE PROVIDED and only treatment to promote comfort will be provided.

Resuscitative efforts are <u>most successful when all components can be offered together</u>. Although it is commonly not recommended, some institutions may allow a patient to have only certain resuscitation efforts in the event of a medical emergency (e.g. no defibrillation, but allow intubation). This consideration should be well discussed and only offered if possible benefits outweighs the risks. Please note: Medications cannot circulate in the body without a heartbeat. Therefore, the option to have Cardiac Arrest Medications without CPR would not be beneficial.

Common Misconceptions:

DNAR does not imply that a health care team will *do nothing* in the event of a patient change in status or that the patient will receive substandard care. Alternatively, full code does not imply that the medical team will continue interventions on a patient that they deem are of no benefit.

Other Life-Sustaining Treatment

Code status focuses on emergent treatment options during a life-threatening event. Other treatment options which are considered life-sustaining, although not considered emergent, may be discussed along with code status. As the amount of benefit and risks is different for every person, it is important to discuss the potential benefits and risks in detail with the physician. Two common treatment options considered to sustain life and some basic information on each are included below.

- Dialysis may be needed when kidneys are no longer functioning properly (renal failure or renal dysfunction).
 - Involves the placement of a dialysis catheter (similar to an IV) or other access that can be connected to a machine to remove fluid and toxins from the body.
 - Generally performed 3 times a week for a 3-4 hour time frame.
 - May be temporary, permanent or used until a kidney transplant can be performed.
 - Primary Risks:
 - Infection
 - Pain from dialysis catheter placement
- Tube-Feeding providing fluids and/or nutrition by way of a tube to someone who cannot take in anything by mouth.
 - Tube-feeding does not always provide a benefit to everyone and can have complications.
 - Offers the most benefit when indicated for a short-time frame, such as a recovery.
 - Not as beneficial when the body is weak from a chronic illness or aging.
 - Primary Risks:
 - Aspiration feeding spills over into the lungs, which can lead to difficulty breathing or pneumonia.

- When the body is not working well, it does not use food and fluids the same. Therefore, fluids may build up in the body. This fluid buildup can occur in the lungs, stomach, legs, hands and other places, leading to discomfort.
- Risk of pulling out feeding tube, possibly causing pain, infection or bleeding.
- Potential to have hands tied down to avoid accidently removing feeding tube.
- A common misconception about not receiving food and water is a person will "starve or be uncomfortable." Losing one's appetite and a decreased desire for fluids is a normal process experienced when a person's body is no longer functioning normal and the body is "shutting down" from a chronic illness.