Defibrillator Deactivation at the End of Life

Deactivation of an Implantable Cardioverter Defibrillator (ICD) is considered both ethically and legally acceptable. Deactivation of an ICD with informed consent from a resident or surrogate is not euthanasia or physician assisted suicide. The intent is not to hasten death, but to allow people to die naturally.

Deactivation of a defibrillator at the end of life brings about several considerations for facility residents, families, and caregivers:

- Check for an ICD when resident is admitted to the facility.
- An ICD is larger than a pacemaker; usually located in the upper chest under the clavicle.
- If a device is identified and you are unable to determine if it is a pacemaker, defibrillator, or combination, you will need to contact the cardiologist or the clinician who manages it.
- Determine the following:
  - When was the device implanted and by who/what company?
  - When was the battery replaced? Batteries generally last 7-10 years.
  - When did the ICD last fire due to an abnormal rhythm?
- The pacemaker component functions independently of the defibrillator. The defibrillator can be deactivated while the pacemaker function remains active. It is recommended to maintain the pacing function in order to increase the heart rate when bradycardia occurs. This promotes comfort since slow heart rhythms may produce heart failure symptoms.
- Deactivating an ICD requires a medical order.
- All residents with defibrillators benefit from a goals of care discussion.

When to Consider and Discuss ICD Deactivation (cardiology should be involved)

| When comfort measures are the treatment preference (shocks are painful and inconsistent with comfort care) |
| When discussing goals of care and resident is making CPR/DNR decisions |
| When prolonging life is no longer a priority or appropriate |
| When ICD shocks would present more burden than benefit |
| If resident has another irreversible terminal condition |
| When it is near time to replace the battery in the ICD |
| When death is anticipated in the near future |

Resident and Family Education

An active defibrillator and comfort measures as a goal are incompatible with each other
An active defibrillator may deliver multiple painful shocks in a resident’s last hours or days of life
Deactivating the ICD is a noninvasive procedure and can usually be done in the facility
Deactivation will not be painful
Deactivation will not cause death
Deactivating the ICD will no longer provide life-saving shocks for ventricular tachyarrhythmias
Discussions and decisions about ICD deactivation should take place before a crisis situation occurs
An ICD can be reactivated if health improves
• A large medical ring magnet obtained at electrophysiology clinics can be used in emergency situations to prevent the defibrillator from firing.
  o Make sure the device is only functioning as a defibrillator and not a pacemaker before doing this.
  o The magnet is placed directly over the ICD and securely taped to the skin.
  o This is only a temporary intervention, and the magnet will need to be removed for several seconds every few hours and then reapplied.
• Communicate all ICD discussions with healthcare providers and the care team.
• Clearly document all conversations, the decisions made by the resident or family, and any interventions (deactivation, etc.) in the resident’s medical record.
• Provide education and emotional support to the resident and family.

References

