IMPLANTABLE CARDIOVERTER DEFIBRILLATOR (ICD) DEVICES: DEACTIVATION OF FEBRUARY 2018

1.0 STANDARD PROCESS

This standard process will guide decisions and operational procedures to be carried out to deactivate an ICD across healthcare settings. Planned deactivation of an ICD should be part of advanced care planning at the point of device insertion, but a timely discussion is required whenever an individual's goals of care shift from active treatment and intervention to palliation and comfort. Planned ICD deactivation occurs in a cardiac device clinic. In situations where the patient's death is imminent and a cardiac device clinic staff member is not available, a Physician or Nurse Practitioner or an RN, RPN or LPN may deactivate the ICD in accordance with the procedures outlined in this document.

Background:

The purpose of deactivating the defibrillator function of an ICD is to prevent painful shocks for patients that are transitioning to end-of-life care. An ICD is a life-saving intervention that is no longer appropriate when an individual is palliative and goals of care shift to comfort. A death with an active ICD device is painful and unwarranted.

Important Considerations:

- Applying a clinical magnet will not result in death. It is simply allowing nature to take its course. Deactivating the ICD will mean that the device will not prevent sudden death in the event of a dangerous arrhythmia (ventricular fibrillation or ventricular tachycardia).
- Turning off the defibrillation therapies does not affect the pacemaker function
- Although it is possible to turn off the pacemaker function of the ICD this is generally not done. Deactivating the pacemaker does not prevent pain and may actually worsen the patient's heart failure symptoms by reducing the amount of blood pumped out of the heart.
- Staff will not experience a shock if touching the individual when the device fires.

2.0 DEFINITIONS AND ABBREVIATIONS

Implantable Cardioverter Defibrillator (ICD) device:	A small battery powered electrical impulse generator that combines a cardioverter and a defibrillator into a single implanted unit for individuals at risk of sudden cardiac death due to abnormal rapid and lethal rhythms (tachyarrhythmia). The device is programmed to detect these abnormal heart rhythms and correct them by delivering a brief electrical impulse ("shock") to the heart. All ICD devices also function as back-up pacemakers.
Most Responsible Practitioner (MRP):	The practitioner who is leading the individual's care. This may be a primary care physician (GP), Nurse Practitioner (NP), or the Cardiologist/Internal Medicine Physician.
Non-urgent Deactivation:	A planned deactivation of the ICD device in a controlled setting such as the local device clinic or an emergency department.
Urgent Deactivation:	An unplanned deactivation of the ICD device due to imminent death or a sudden deterioration in the client's condition, when non-urgent deactivation is not feasible.

3.0 DOCUMENTATION CONSIDERATIONS

- ICD Deactivation Referral Form (# 826506)
- ICD Deactivation Pre-Printed Order (# 826507)
- Patient Consent for ICD Deactivation (# 826474)

4.0 PROCEDURE

Review CID indicator in Meditech to confirm that the device is an ICD. If no CID indicator entered refer to Pacemaker Reports in External Documents in Meditech.

Review the ICD Deactivation Decision Algorithm.

NON-URGENT PROCEDURE

4.1 Implantable Cardioverter Defibrillator (ICD) is determined to no longer meet the individual's goals of care:

- Discussion and decision to deactivate the ICD is held with individual, family and or legal substitute decision maker (SDM) by MRP.

4.2 Individual or SDM completes the Patient Consent for ICD Deactivation (# 826474).

4.3 Obtain ICD Deactivation Pre-Printed order (PPO) from MRP (# 826507).

4.4 ICD Deactivation referral form (# 826506) is completed by MRP.

4.5 Referral form, consent and PPO are faxed to the appropriate IH Regional Pacemaker Clinic.

4.6 An appointment is arranged for the individual to attend the device clinic.

4.7 If the individual is too frail or weak to be transported to the device clinic, consider the following options:

- Ambulance transports the individual to the Device Clinic.
- When transporting a patient from an IH facility, patient transfer can be booked through the Patient Transport Office (PTO) at 1-866-929-4423.
- Consider moving to Urgent Procedure if moving patient to clinic is not feasible (see 4.8 to 4.13).

URGENT PROCEDURE

4.8 Individual or SDM completes the Patient Consent for ICD Deactivation (# 826474).

4.9 Obtain ICD Deactivation Pre-Printed order (PPO) from MRP (# 826507).

If this is not possible, a verbal order will be accepted in urgent situations but must be followed-up by written order or signed pre-printed orders.

4.10 Apply a clinical magnet over the implanted device and tape securely in place.

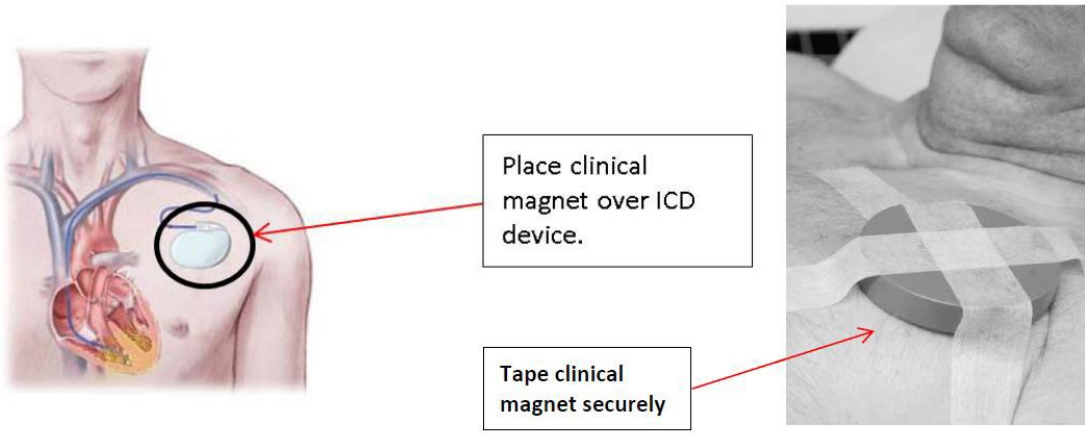
Before magnet application confirm that the following are completed:

- Verify patient using at least two patient identifiers.

- As appropriate, answer any questions as they arise and reinforce information as needed.
- Perform hand hygiene.
- Locate the site of the ICD generator.
- Place the clinical magnet over the ICD generator and tape securely. (see diagram below)

The magnet application may result in a tone or a ringing being emitted from the device for 10 -20 seconds.

Note: Applying the clinical magnet does not disrupt the pacemaker function and will continue to support bradycardia.



4.11 Monitor that the magnet remains securely taped over the implant site once per shift.

4.12 Upon application of a clinical magnet, the device clinic should be immediately contacted requesting they formally deprogram the ICD.

4.13 If the patient dies with the magnet in place, ensure the magnet remains taped to patient chest for at least 30 minutes or until the device can be permanently deactivated by a programmer.

4.14 Once the magnet has been removed clean with a non-abrasive cleanser. This is a multi-use device. Do not discard the magnet.

Disclaimer: The procedure steps may not depict actual sequence of events. Patient/Client/Resident specifics must be considered in applying Interior Health Clinical Practice Decision Support Tools

5.0 REFERENCES

BC's Heart Failure Network. (2018). *End of Life Tools.* Retrieved from http://www.bcheartfailure.ca/for-bc-healthcare-providers/end-of-life-tools/

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