Documentation Dissection

Preoperative Diagnosis: Long QT syndrome, Need for defibrillator pulse generator change.

Postoperative Diagnosis: Defibrillator pulse generator change replacement, long QT syndrome.

Procedure: Defibrillator Pulse Generator Replacement [1].

History: This is a 22-year-old woman with long QT syndrome [2] who was initially implanted with a dual-chamber defibrillator in 2000. She has a family history of mother with sudden death [3]. She underwent a generator change in July 2004. Her generator is currently at ERI [4].

Procedure: Informed consent was obtained. Accordingly, the left pectoral area was prepped and draped. This procedure was being done with general endotracheal anesthesia. A 5 cm incision was made along the scar overlying the generator in the left pectoral area. Dissection was carried down to the generator and the generator was removed from the pocket. It was identified as a Guidant model T125, serial #107459 implanted July 19, 2004 [5]. The chronic right atrial lead was identified as a Guidant model 4053, serial #405764 implanted August 7, 2000. The RV lead was identified as a Guidant model 0154, serial #340963 implanted August 7, 2000 [6]. The generator was removed from the leads and set aside to be given to the patient at her request [7].

Chronic right atrial capture threshold was 2.3 V at 0.5 msec with a measured impedance of 324 ohms and a measured P wave of 2.6 mV. Chronic RV capture threshold was 0.8 V at 0.5 msec with a measured impedance of 389 ohms and a measured R wave of 5.4 mV.

The chronic atrial and ventricular leads were attached to a [8] new Boston Scientific model E110, serial #136089 defibrillator pulse generator [9]. Appropriate bradycardia function was confirmed through the generator and the programmer.

Ventricular fibrillation was induced with a T shock with a drive of 400 msec and a coupling interval of 310 msec. VF was appropriately detected with ventricular sensing programmed to 1 mV and terminated with a single 21 joule biphasic shock. Shocking impedance was 78 ohms. Of note, the proximal shocking coil was electronically excluded during this DFT [10].

The pocket was enlarged superiorly about 2 cm to accommodate the larger footprint of the new defibrillator.

The pocket was irrigated with an Ancef solution. The generator and excess loops of lead were placed in the pocket. The incision was closed in three layers. There was a deep layer with 2-0 Vicryl, a subcutaneous layer with 3-0 Vicryl and the skin was closed with 3-0 Prolene. At the patient's request, and on the recommendation of her previous dermatologist, the scar was injected with a combination of bupivacaine and Kenalog. Steri-Strips and a sterile dressing were applied [11].

The procedure was tolerated well without apparent complication.

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[1] Procedure #1—Replacement of defibrillator pulse generator.

[2] Diagnosis #2—Long QT syndrome.

[3] Diagnosis #3—Family history of sudden death.

[4] Diagnosis #1—ERI means elective replacement interval and signifies that the generator is at the end of it useful life and needs to be replace..

[5] The pulse generator was originally placed in 2004. The manufacturer and model number can be used to select the correct HCPCS code.

[6] The right atrial and right ventricle leads were placed in 2000. The manufacturer and model numbers can be used to select the HCPCS code when they are inserted or replaced.

[7] The pulse generator was removed.

[8] Chronic means the leads that were in place before this operative session. The surgeon attached the "old" leads to the new pulse generator.

[9] A new defibrillator pulse generator was placed.

[10] Procedure #2—DFT—Defibrillator Threshold Testing was performed to see if the defibrillator was working properly.

[11] The pulse generator pocket was irrigated and closed. Closure is included in the procedure.

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What are the CPT® and ICD-10-CM codes reported?

Facility CPT® Codes: 33263, 93642-26

ICD-10-CM Codes: Z45.02, I45.81, Z82.41

Rationales:

CPT®: In the CPT® Index, look for Implantable Defibrillator/Transvenous Implantable Pacing Defibrillator (ICD)/Replacement of Pulse Generator. Report code 33263 *Removal of implantable defibrillator pulse generator with replacement of implantable defibrillator; dual lead system*. Verify the procedure. Only one device was removed and replaced. The device was a defibrillator pulse generator. It was a dual chamber pulse generator because both an atrial and ventricular lead were attached to it. Code 33224 is not correct because it is implantation of a left ventricular lead (not a pulse generator.)

In the CPT® Index Reprogramming/Cardiac Pacing Device/Implantable Defibrillator referring you to 33270 and 93642. Report modifier 26 for the professional service for 93642. This range of codes is very long. It is not easy to locate the defibrillator threshold testing by scanning the tabular index. Read the guidelines notes in CPT® just before the pacemaker insertion codes, defibrillator threshold testing (DFT) at the time of replacement may be separately reported using 93642 or 93644. Report 93642 for EP evaluation of single or dual chamber transvenous pacing cardioverter-defibrillator. Code 93644 is used for DFT testing of a subcutaneous defibrillator. Code 93642 is the correct code because this is not a subcutaneous defibrillator.

HCPCS: The HCPCS codes for the pulse generator will be submitted on the claim in the department that implanted the defibrillator pulse generator. Hospital coders may be asked to assist the department when assigning HCPCS codes to devices. This normally only occurs if there is a claim edit. Manufacturer websites normally have a reimbursement file with HCPCS codes for the devices.

ICD-10-CM: Look in the ICD-10-CM Alphabetic Index for Admission for, adjustment of device NEC, implanted, cardiac, defibrillator Z45.02. Verify in the Tabular. Code Z45.02 covers encounter for adjustment and management of automatic implantable cardiac defibrillator. Notice the includes note that states this code includes removal or replacement of implanted device.

Look in the ICD-10-CM Alphabetic Index for Syndrome/long QT I45.81. Confirm code in Tabular. Assign code I45.81, for the long QT syndrome.

Next look in the ICD-10-CM Alphabetic Index for History, family, sudden cardiac death. This indexes to Z82.41. Verify the code in the Tabular List. Assign code Z82.41, for family history of sudden cardiac death.