



Cryo Nerve Block

Medical Necessity and Procedure
Documentation

AtriCure

Cryo Nerve Block

Medical Necessity

1. Must be **specific to the patient** and not the procedure type
2. Must be in **OP note** (not just pre-op or floor note)

Below is an example of a published case study* where medical necessity is described.

Example: Mr. Jones a 65-year-old man was referred to cardiac surgery for consideration of aortic valve replacement (AVR) for mixed moderate aortic stenosis and severe aortic insufficiency. The patient had a bicuspid aortic valve and normal coronary arteries. He underwent preoperative computed tomography angiography (CTA) that ... After discussions with the thoracic oncologist, it was determined that he was an ideal open-surgical candidate. The patient was scheduled for thymoma resection and surgical AVR through a full sternotomy. Furthermore, he consented to bilateral cryoablation using the cryoSPHERE (AtriCure, Inc.) cryoablation probe in an on-label, device to ameliorate postoperative pain. This procedure and the intercostal nerve pathways that are ablated have been previously described in other surgical procedures. Compelling evidence exists that cryoablation is safe and effective for pain control in thoracotomy procedures (both thoracic and minimally invasive cardiac) as well as bilaterally in adolescent patients undergoing Nuss procedure. Based on dermatomal maps, T1-T6 covers the sternal notch to the xiphoid encompassing the entire length of a standard median sternotomy incision.

While there are several regional techniques that have been used for pain control after cardiac surgery including bilateral erector spinae plane (ESP) blocks, paravertebral blocks, thoracic epidural, pecto-intercostal fascial plane blocks, intrathecal opioids, as well as intercostal nerve blocks with liposomal bupivacaine, these address immediate postoperative pain only. As intercostal nerves grow back after cryoablation at a rate of approximately 1 mm per day, cryoablation 6 cm from the sternal incision provides lasting pain control for up to 3 months.

Procedure Documentation

1. Describe cryoablation procedure in detail **separate from** detail of **base procedure**
2. Timestamp procedure including **total time** spent on cryoablation

Below is an example of procedure documentation from a published case study.*

Example: We then turned our attention to the cryoablation. The sternal retractor was removed, and the mammary retractor placed to expose the left pleural space. The pleura was opened to expose the left thoracic cavity. Wet lap pads were placed to push the lung posteriorly to better expose the anterolateral chest wall. Then, 6 cm from the midline incision the pleura along the chest wall was incised with electrocautery from T1-T6. This provided better access to the intercostal space when applying the cryoablation probe under the rib, compressing the neurovascular bundle. Each nerve was cryoablated for 2 minutes. After the ablations on the left were completed, we performed the procedure in an identical fashion on the right. On completing the right-sided ablations, the conduct of the surgical AVR was performed per standard protocol, including sternal closure with double sternal wires ... The patient was transported to the intensive care unit (ICU) in stable condition. The entire operation took 2 hours 54 minutes with **approximately 35 minutes dedicated to cryoablation.**



VIEW the published case study from both examples.

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*The case study is from the following paper: https://journals.lww.com/aacr/fulltext/2023/02000/case_report_of_cryo_nerve_block_in_a_patient.1.aspx

For additional information, please contact AtriCure's Reimbursement hotline at **1 (303) 845-2027**.

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