

Pain Management Coding Alert

Procedure Focus: Build Your Knowledge of Neurolytic Destruction Options

Hint: Different techniques work for different conditions.

The descriptors for numerous CPT® codes mention "destruction by neurolytic agent," such as those in groups 64600-64647 and 64650-64681. Physicians can use several chemicals or other materials to bring about neurolytic destruction. Here's a practical rundown to help you understand the differences and file successful claims.

Background: Physicians used chemical nerve destruction to provide patients with pain relief extensively in the past. Newer analgesics and safer techniques moved to the forefront for a time, but advances in cryoablation and radiofrequency lesioning have led to a fresh interest in nerve destruction.

There are four methods of neurolysis:

- Chemical neurolytic injections
- Cryoablative techniques
- Radiofrequency lesioning
- Neurosurgical procedures.
- Patient Selection Is the First Step to Successful Neurolysis

Careful patient selection is the key to a successful neurolytic destruction. Prior to the performance of neurolysis, it should be established that the patient has a pain problem that has not responded to other forms of treatment. The pain should be localized and not require multiple segmental injections for treatment.

A psychological evaluation is also important in completely evaluating the patient before considering neurolysis.

"This evaluation isn't a bad idea, but typically is not a payer requirement, as is the case with neurostimulators and/or implantable infusion pumps," says **Marvel J. Hammer, RN, CPC, CCS-P, ACS-PM, CPCO**, owner of MJH Consulting in Denver, Co.

Main point: Extensive communication with the patient is necessary and the risks and benefits of the procedure should be explained before proceeding. Knowing that the patient and family understand and accept the possibility of complications is essential.

Providers often use neurolytic injections in conjunction with other therapeutic regimen including pharmacotherapy, psychological counseling, and physical therapy. One or more diagnostic local anesthetic blocks should be performed to confirm the anatomic nature of the pain and to allow the patient to experience the effects of the neurolytic injection with minimal side effects. If short term pain relief is achieved and the patient is willing to accept the risks, your provider should obtain a written informed consent in front of a witness prior to performing the destruction.

Report it: The correct code for the diagnostic block will depend on the anatomic structure your provider injects. Hammer recommends these:

- Epidural ☐ 62310 (Injection[s], of diagnostic or therapeutic substance[s] [including anesthetic, antispasmodic, opioid, steroid, other solution], not including neurolytic substances, including needle or catheter placement, includes contrast for localization when performed, epidural or subarachnoid; cervical or thoracic) or 62311 (... lumbar or sacral [caudal])
- Paravertebral facet joint(s) ☐ 64490-64495 (Injection[s], diagnostic or therapeutic agent, paravertebral facet

- [zygapophyseal] joint [or nerves innervating that joint] with image guidance [fluoroscopy or CT] ...)
- Other peripheral nerve(s) □ 64450 (Injection, anesthetic agent; other peripheral nerve or branch)
 - Celiac plexus □ 64530 (Injection, anesthetic agent; celiac plexus, with or without radiologic monitoring)
 - Superior hypogastric □ 64517 (Injection, anesthetic agent; superior hypogastric plexus).

Chemical Neurolytic Injections Include Many Options

When your physician performs a chemical neurolytic injection, she administers an agent that is capable of destroying neural structures involved in the perception of pain to promote long lasting analgesia. In the 1920s, physicians used these agents to treat severe pain due to cancer and other inoperable chronic conditions and for patients whose life expectancy was relatively short (less than one year).

The agents used for chemical neurolysis include phenol, ethyl alcohol, hypertonic saline, and other miscellaneous agents.

Phenol: Physicians inject phenol to cause nerve destruction by inducing protein precipitation; however, phenol is not as effective at destroying the nerve cell body as some other agents, and its blocking effect tends to be less profound and of shorter duration.

The neurolytic effect of phenol may be clinically evident only after 3 to 7 days. If the patient still has inadequate pain relief after two weeks, this may indicate incomplete neurolysis and lead to repeating the procedure.

Nerve regeneration following a phenol injection is difficult, but not impossible as long as the nerve cell body is intact. Phenol also can be used for paravertebral somatic nerve, peripheral nerve, and sympathetic injections.

"Physicians might also inject a diluted concentration of phenol to treat extreme muscle spasticity in place of botulinum toxins," Hammer says. "Injections of higher concentrations will also destroy motor fibers as well as the targeted sensory nerve fibers. Motor fiber destruction can lead to muscle weakness or even paralysis."

Ethyl alcohol: This agent has similar destructive effects as phenol but is more efficient in destroying nerve cell bodies.

Physicians use alcohol in celiac plexus or superior hypogastric destruction primarily in patients with abdominal malignancies. Other uses can include non-surgical treatment of Morton's neuroma. It spreads quite rapidly from the injection site and its effectiveness can be assessed in 12 to 24 hours. Similar to phenol, if inadequate pain relief is achieved after two weeks, the neurolytic injection should be repeated.

Hypertonic saline: The use of hypertonic saline by intrathecal injection to treat intractable pain was first reported in 1967. The most commonly used solution is the 10 percent aqueous solution and is available as a pharmaceutical preparation. Providers first inject a local anesthetic because the hypertonic saline causes severe pain on injection. When administered intrathecally, hypertonic saline can cause increased intracranial pressure, blood pressure, heart rate, and respiratory rate.

Miscellaneous agents: Other agents including ammonium salt solutions, chlorocresol, and distilled water have been used in the past to promote neurolysis. However, their neurolytic effect is unpredictable and their use is now relegated to history.

The success and duration of the neurolytic destruction may vary anywhere from partial to excellent pain relief lasting from weeks to months depending upon the anatomic location of the injection and the skill of the physician. The most common cause of unsuccessful neurolytic destruction is incorrect placement of the neurolytic agent.

Next month: Learn how cryoablation and radiofrequency lesioning work so you can keep your payment flowing from these procedures.