

Managing Intrathecal Baclofen Pump Implantation

An Interdisciplinary Approach

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It's a treatment for alleviating spasticity in people with spinal cord injury. But the intrathecal baclofen pump has also caused a headache for facilities as they try to manage the increasing number of patients receiving this treatment.

The pump, placed just below the skin in the abdomen, infuses a preset dosage of baclofen via catheter to the spinal canal, eliminating the need for oral baclofen.

The increase in patients' being tested for and undergoing this procedure at The Institute for Rehabilitation and Research in Houston meant that the system for treating and tracking these patients was no longer sufficient. A new procedure had to be developed that would streamline the process while allowing better record-keeping, and would serve both patients and staff.

Under the old system, patients were required to come to the hospital for several visits so that each discipline could perform evaluations. There was no common documentation, which hampered the already difficult task of justifying the implants to payers.

In addition, no predetermined schedule for follow-up evaluations was in place during the trial injection. Each discipline performed its post-trial evaluations whenever the patient was available, making documentation, communication and timing problematical.

A new coordinator

The new process coordinates the pretrial and trial evaluations on the day of implant. This allows the team members to efficiently complete their evaluations, thus getting the results to the physician in a timely manner.

The coordinator for the process is the surgical nurse, who is responsible for the following: screening candidates, obtaining medical records and financial authorization, establishing the date of the trial in coordination with the physician, and scheduling physical therapy and occupational therapy evaluations.

The coordinator is also responsible for educating the patient about both the baclofen pump and the implantation process. This information is usually issued in writing. The coordinator also schedules periodic follow-ups and pump refills.

Improved documentation

Team members developed an assessment form that eliminates discipline-specific evaluations and progress notes. Instead, the integrated document provides specific and concise interdisciplinary information.

This assessment form focuses on functional abilities, range of motion, spasticity, urological issues and medical information. The format offers an easily accessible comparison of objective data: The pre- and post-trial information are recorded side by side.

It also allows the team members to decide immediately whether the trial has succeeded and permanent implantation can proceed, or whether a retrial is necessary.

The physical and occupational therapists initiate this form during the pretrial evaluation. It is then placed in the patient's medical record to allow all disciplines access to the form on the day of the trial.

Benefits

There have been many benefits for the interdisciplinary team and the patients as a result of this improved process.

A true interdisciplinary approach, including the physician, nurse, therapists, social worker and case manager, is now in place. The objective pre- and post-trial findings are documented side by side for ease in comparison. This provides immediate feedback to the physician regarding pump trial results and justification for the insurance company. And the patients report satisfaction with the efficiency of the process and the proactive team approach for solving problems.

Continuous improvement


Overall, the baclofen pump interdisciplinary assessment process has enhanced team communication, efficiency and patient satisfaction.

By having one coordinator serve as a liaison between the patient, staff and insurers,

the team has created a smooth process from initial patient contact to pump implantation.

In addition, the assessment form has assisted in justifying implantation to the insurance companies, primarily because of its easy-to-read format. Its design allows the clinicians and physicians to easily view documented objective findings and determine trial effectiveness.

This process continues to be improved as the program grows. For example, the assessment document has limitations: It is lengthy, not all sections are consistently completed, and it must be kept in a central location because all disciplines document on the same form. The process also requires a lot of coordination, communication and teamwork, which can be time-consuming.

A committee is currently revising the form with the goal of creating a simplified document that will improve efficiency and ease of use. 

Intrathecal Baclofen Pump Assessment Process

The following steps are completed approximately two weeks before trial date:

- Urology consult /urodynamic studies (if indicated)
- Lab work (CBCUA, etc.)
- Physical therapy and occupational therapy evaluations
- Social work consult
- Neurosurgery consult
- Cardiology consult and clearance if any cardiac precautions present
- PM&R physician consult
- Weaning schedule of anti-spasmodic medication presented to client
- Anti-coagulant medication stopped
- Further education by the baclofen nurse coordinator

TRIAL DAY SCHEDULE

- 5:30 a.m. Arrive at TIRR, check in to assigned nursing unit, begin pre-op procedures (paperwork and pre-op orders already written by physician)
- 6:00 a.m. Transportation takes patient to OR where patient is draped and prepped for procedure
- 7:00 a.m. Lumbar puncture and bolus injection of 50 mcg given by neurosurgeon
- 7:30 a.m. Transported back to unit with 1:1 nursing monitoring for eight hours
- 11:00 a.m. Post-trial evaluation performed by physical therapy and occupational therapy staff
 - * if (+) response → call baclofen nurse coordinator → call urology for post-urodynamic studies (if ordered by the physician) → pump implantation at scheduled date
 - * if (-) response → call baclofen nurse coordinator → a repeat bolus of 75 mcg performed on next available day
- 12:30 p.m. Perform post-urodynamic studies
- 1:00 p.m. Bolus effects may start to wear off, and spasticity begins to return
- 2-4:00 p.m. PM&R physician discusses results of trial and plans for pump implantation with patient
- 5:30 p.m. Patient discharged once vital signs are stable and patient returns to baseline

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