Baclofen Pump Program at Boston Children’s Hospital
Establishing a Nurse Practitioner Directed Program to Manage Baclofen Pumps in a Large Pediatric Medical Center
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Outpatient Management
• Pre-pump teaching
• Dose adjustments (weekly post-op until therapeutic)
• Perform and track pump refills *benchmark = no empty pumps
• Assess pump function at every visit
• Troubleshooting as needed
• Referrals and order maintenance for patients using home care pump management

Inpatient Management
• Ensure ITB dose is in patient orders and on medication list for all inpatients and team is aware of the baclofen pump and dosing
• Ensure patient is not due for refill during inpatient stay. Refill as needed.
• Assist with post-op management after pump placement
• Adjust pump for tone/spasm management for pump patients following orthopedic surgery
• Assist with plan for ITB withdrawal management within scope of practice
• Staff education

Surgical Management
• Review choice of 40ml pump vs 20ml pump pros/cons for each patient
• Evaluate patient response at trial
• Consult re: initial dose of pump based on trial results and patient condition
• Collaborate with neurosurgery re: repair plans for malfunctioning systems

Program Management
• Manage policies and competencies related to baclofen pump
• Maintain database of patients
• Track numbers monthly
• Maintain programmers throughout hospital (updates, date/time checks, etc)
• Establish standard of care throughout the hospital for baclofen pump patients
• Staff education
• Maintain QI initiatives
• Perform research related to children with baclofen pumps
• Presentations at local and national conferences

Family Centered Education
• NP meets patient/family upon first suggestion of pump and gives family full education and take home materials about baclofen pump
• NP attends initial Neurosurgical meeting with patient to provide further education
• NP sees patient during trial day, provides further education
• NP follows patient during inpatient stay post-operatively. Extensive teaching is performed.
• Further teaching is provided as needed during outpatient visits.
• Consistency and frequent face-to-face time with the Baclofen Pump NPs enhances the patient relationship and builds trust in the program for the family

Acute Management/Troubleshooting
• Assess all patients regularly and as needed to determine if there may be an issue with the system
• Assumes a leadership role in troubleshooting problematic pumps with both the coordination of the diagnostic work-up and implementation of a prescribed treatment program
• Consult to admitting service re: withdrawal/issues and plan
• Consult with neurosurgery in cases of concern

Quality and Safety
• On call 24/7 to ensure pump concerns are promptly addressed by the most expert clinicians
• Track refills to ensure no empty pumps
• Teaching for families and staff around early withdrawal recognition and management
• Limited number of staff can access programmers, therefore limiting errors

235 patients
Baclofen Pump Nurse Practitioners
Team of 2 dedicated NPs with Medicine and Neurosurgery backup

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