

Spinal Fusion for Neuromuscular Scoliosis: Preoperative Considerations

This preoperative timeline may be used as a general guideline. It begins when the orthopaedic surgeon (in coordination with neurosurgery or other surgical specialists) determines a need for surgical intervention. Timing and selection of medical specialty consults and diagnostic studies vary, depending on severity of scoliosis, co-morbidities, and pt/family needs.

- **3-4 months before surgery**
 - Orthopaedics
 - Orthopaedic surgeon completes “Surgery Scheduling” worksheet ; details preoperative needs
 - “ Patient Checklist” for spinal surgery given to pt/family
 - Tentative surgery date may be scheduled
 - CXR (& noninvasive venous study if non ambulatory status) ordered; other studies as indicated
 - Gastroenterology Consult, *if indicated*
 - Assess nutritional status
 - Review bowel cleansing protocol
 - Determine readiness for surgery
- **2-3 months before surgery**
 - Pulmonary Consult
 - Respiratory provides Spirometry (FVC/FEV1) as patient able
 - Respiratory performs preoperative cardiopulmonary assessment to evaluate need for non-invasive mask desensitization
 - CXR and/or other studies as indicated
 - Determine readiness for surgery
 - Neurology Consult, *if indicated* (i.e. seizure disorder)
 - Evaluate seizure medications
 - Determine readiness for surgery
 - Cardiology Consult, *if indicated*
 - EKG, Echocardiogram, other studies as indicated
 - Determine readiness for surgery
 - Dental Consult, *if indicated*
- **1 month before surgery**
 - Orthopaedic surgeon/NP reviews preoperative medical specialty consults; may adjust care plan and surgery schedule accordingly
- **1 to 2 weeks before surgery**
 - Orthopaedics
 - Preoperative visit with primary orthopedic surgeon
 - H+P; review home medications (adjust if needed); document height, weight, allergies
 - Pt/Family Education from Orthopedic Nurse/Case Manager
 - Review/distribute “Scoliosis Packet” from Schoolhouse, refer to Scoliosis videos
 - Provide Hibiclens and CHG bath cloth to pt/family with instructions for use
 - Review postoperative plan regarding pain management, dietary, respiratory, bowel management program, mobility/equipment, infection prevention, and home needs
 - Pt obtains prescribed lab work and diagnostic studies
- **3 days and 2 days before surgery**
 - Bathe with Hibiclens
- **1 day before surgery**
 - Cleanse with CHG bath cloth (completed by IP RN if patient admitted day before surgery and by parent/caregiver at home if pt scheduled for admit on day of surgery)
 - SSU staff calls Pt/family to assess readiness, answer questions (if pt is scheduled for admit day of surgery)
- **Morning of surgery**
 - Initiate Order Set minimum of two (2) hours before scheduled surgery time
 - Cleanse with CHG; should be done within 6 hours prior to surgery
 - Obtain lab tests/diagnostic studies/reports (i.e. u/a w/ pregnancy test, urine C+S), if not previously obtained
 - Anesthesiology assesses patient needs
 - Verify and order home medications
 - NPO per surgery protocol
 - Preoperative unit sends prophylactic antibiotic (s) to OR with pt (starts Vancomycin if being given)

Spinal Fusion for Neuromuscular Scoliosis; Special Preoperative Considerations

- Spinal surgery in patients with neuromuscular disorders requires a multidisciplinary approach, with careful planning and specialized preoperative and postoperative care.
- The use of an orthopaedic coordinator, case manager, and/or patient admitting coordinator may facilitate the coordination of specialty referrals and communication between consultants and the surgical team.
- Preoperative surgical site infection prevention practices include surgical site infection prevention education for patient and family, CHG skin prep, timely and appropriate antibiotic prophylaxis, and use of clippers or no hair removal.
- Patient and Family Education resources include CHOC Children's Video Series: "Scoliosis Surgery", a "Scoliosis Packet" located on Schoolhouse, and SSI Prevention materials.
- CHG Technique is described in "Pre-operative Bath with Chlorhexidine Gluconate (CHG) Cloths (For Spinal Fusion Patients)".
- Per CHOC Children's "Antibiotic Prophylaxis for Surgery Guideline", antibiotic prophylaxis for surgery is given within one hour prior to surgical incision, except for Vancomycin, which is given within two hours (from 60 -120 minutes) before the incision.

Resource List

- Antibiotic Prophylaxis
 - CHOC Children's "Antibiotic Prophylaxis for Surgery Guideline"
 - Pathway: PAWS ; Resources; Care Guidelines
 - <http://paws/careguidelines/AntibioticProphylaxisForSurgeryGuideline.pdf>
- Patient and Family Education Resources
 - CHOC Children's Video Series; "Scoliosis Surgery"
 - Pathway: CHOC.org; Our Institutes; Orthopaedics; Related Links; Video; Video Library
 - <http://www.choc.org/video/index.cfm?keyword=orthopaedics§ion=orthopaedics>
 - "Scoliosis Packet"
 - Pathway: PAWS; Resources; Schoolhouse; Patient and Family Education; Scoliosis Packet
 - <http://paws/schoolhouse/subcategory.cfm?subcategory=Scoliosis>
 - Surgical Site Infection (SSI)Prevention
 - Pathway: PAWS; Resources; Infection Prevention; Surgical Site Infections
 - http://paws/formbank/acct_diff2.cfm?subcategory=SSI
- Infection Prevention; Pre-operative CHG Bath
 - Manual: Infection Prevention; Section: General Infection Prevention; Number: 340; Title: "Pre-operative CHG Bath."
 - Attachment A. "Pre-operative Bath with Chlorhexidine Gluconate (CHG) Cloths (For Spinal Fusion Patients)"
 - Pathway: PAWS; Resources; CHOC POI; Infection Prevention
- Medication Reconciliation
 - Manual: Administrative and Patient Care; Section: Medication; Number: I-990; Title: "Medication Reconciliation"
 - Pathway: PAWS; Resources; CHOC POI; Administrative and Patient Care
 - <http://paws/POI/Administrative%20and%20Patient%20Care/I%20-%20Medication/I990%20-%20Medication%20Reconciliation.pdf>