The ABC's of Post-Op Care
for the
Idiopathic Spinal Fusion Patient

- A Comprehensive Educational Guide for Nurses -

Show your Spine some Love Today

Information Compiled into "ABC" Format
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Nurses can provide truly comprehensive post-op care using the same ABC's for every type of surgical patient:

- **A** is for Activity
- **B** is for Big Breaths
- **C** is for Control Pain
- **D** is for Diet with Protein
- **E** is for Equipment
- **F** is for Focused Assessment
- **G** is for Going Home
- **S** is for Skin Health

"The ABC's of Post-Op Care"
Created By: Katie Miller, BS, RN, CPN Surgical/Trauma Acute Care, DCMC
Activity

*MOVING soon after surgery is the #1 MOST IMPORTANT thing for a faster recovery overall!

*Walking early after surgery:
- Clears the lungs
- Wakes up the bowels
- Stretches and strengthens muscles
- Increases blood flow for clot prevention
- Improves overall patient mood and confidence

**Day of Surgery:**  
(Document Time in chair in "ADL's" for audits)
- RN will get pt Out of Bed to Chair on the NIGHT of the surgery day
  - Sitting up on the side of the bed or in a chair the FIRST NIGHT is essential for better activity progress on the following days
  - Lots of encouragement will be needed and reminding the patient and the family that it will get easier each time they get up
- **No bending, lifting, or twisting.** Turn every 2 hrs while in bed for skin health. Log roll with shoulders/hips in line.

**Post-op Days# 1-3:**  
(Document Time in chair and walks in hall in "ADL's" for audits)
- OOB to chair 2-3x/day (encourage to coordinate with meals)
- Ambulate in hallway 2-3x/day, starting with PT on POD #1
- No bending, lifting, or twisting. Turn every 2 hrs while in bed for skin health. Log roll with shoulders/hips in line.

*Educate and encourage parents/family to HELP with turns and getting out of bed on POD #1 and gradually transition to only RN observation (ideally by POD #2)
- Remember that both the parents and the patients are scared and are looking to you for reassurance. (NURSE = COACH!)
- Frequently remind them of the importance of increasing activity for muscle strength, lung clearance, and bowel motility...it's okay to be a broken record
- Praise parents for even the smallest things they are doing to help with turning, as this will give them the confidence they can care for their child at home alone AND the pt will feel more secure with their parents' help instead of only the nurse
- The quicker you can make the patient feel comfortable with the parents turning them, the sooner your job gets easier!
**Big Breaths**

- Incentive Spirometer q2h while awake *minimum*, starting POD 0 through discharge
- Possible chest x-ray on POD#1 to r/o pneumothorax
- Education on IS will start at the pre-op appointment but review each step upon arrival to the room and encourage the use of the laminated chart to record their numbers
  - Use the blue link in i-view under "Respiratory" to get an accurate "goal" number based on the pt's age and height (Please don't guess and definitely don't set the goal too low!)
- Use bubbles/pinwheel if below 30% of goal; request EZPAP only if saturations low
- Educate the pt and the family that the risk of post-op pneumonia remains up to 30 days after surgery so keeping lungs clear early on is very important
  - Explain to the patient what pneumonia is because most kids have heard the word but don't understand what it is, such as "big, thick boogers in the bottom of your lungs that make it hard to breathe and you ache all over"
- Send the IS home with the pt, explaining they may stop using it when they are walking at least 5 times per day easily

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**Teach the Incentive Spirometerright the FIRST time**

- Breathe IN mouth
- *HOLD BREATH!
- Breathe OUT mouth
- *COUGH every 3 - 5 BREATHS!

**BIG Breaths = BIG Rewards**

*You have a BIG role in HELPING YOURSELF get better FASTER!*

**How do I use my Incentive Spirometer (IS)?**

- **PHLEGM** is an infection in your lungs that makes it hard to breathe and can hurt!
- After surgery, you can get pneumonia from not taking deep breaths or not being active while awake.
- Pneumonia will make you feel more sick and you might have to stay in the hospital longer.
- Using your Incentive spirometer will help you take DEEP breaths to help keep from getting pneumonia.

**Who needs to use the IS? (if you and older)**

- ALL children and adults
- ANY child that is 6 to 10 years of age
- ANY child that is 11 to 17 years of age
- ANY child that is 18 years old or older

**When do I use the IS?**

- You can use the IS as often as you want
- If you have a hard time taking deep breaths and can't walk easily on your own 5 times per day
- If you have a minor injury and can't walk at all
- If you have a fever and can't walk at all
- If you have cold or flu and can't walk at all
- If you have an injury or surgery and can't walk at all

**How do I use my IS?**

- Place the IS in your mouth
- Blow into the IS
- Hold your breath
- Take a deep breath

**What does the number mean?**

- The number on the IS is your "GOAL" number
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**Take 10 breaths EVERY HOUR while awake**

- *My GOAL is:
- *Take 10 breaths EVERY HOUR while awake*

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**Pair mealtime with your IS**

*On the left side of the IS, there is a place to put a {}**

- Pair mealtime with your IS
- Pair mealtime with your IS
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- Pair mealtime with your IS
**Control Pain**

*Based on assessment of the pt, medication dosages &/or intervals may be changed. They may also be changed from scheduled to prn.*

### PRE-OP:
- **Tylenol:** 15 mg/kg/dose PO x 1
- **Gabapentin:** 10 mg/kg/dose PO x 1
- **Valium:** 5-10 mg PO x 1

### DAY OF SURGERY:

#### IV PCA Morphine:
- **Basal:** 0.01-0.015 mg/kg/hr
- **Demand:** 0.015 - 0.02 mg/kg/dose every 15 minutes

#### Basic Neuro Asmt & VS q2h x24 hrs
d/t initiation of PCA and other pain meds

#### Check for over-sedation:
- pt should be able to stay awake to answer simple questions and participate in NV asmts

#### Call CAA for concerns of over-sedation (report if low BP, low RR, & pinpoint pupils)

### POD #1:

*Discontinue PCA @0630 (30 minutes after 1st scheduled Oxycodone)*

#### Scheduled Meds:
- **Tylenol:** PO per protocol q6h
- **Toradol:**
  - <44kg: 0.1 mg/kg/dose q4-6h prn
  - >44kg: 5 mg/dose q4-6h prn

#### Gabapentin:
- 5 mg/kg/dose PO q8h (total of 5 doses; give 1st dose at 8pm)

#### Valium:
- 2-5 mg PO q6h x 48 hrs

### POD#2 - Discharge:

#### Scheduled Meds:
- **Tylenol:** PO per protocol q6h
- **Toradol:** DISCONTINUE

#### Gabapentin:
- 5 mg/kg/dose PO q8h (total of 5 doses; LAST dose at 0400 on POD#2)

#### PRN Meds:
- **Valium:** 2-5 mg PO q6h prn
- **Oxycodone:**
  - <44kg: 0.1 mg/kg/dose q4-6h prn
  - >44kg: 5 mg/dose q4-6h prn

#### Step #2 Oxycodone: for breakthrough pain
- <44kg: 0.1 mg/kg/dose x1 prn
- >44kg: 5 mg/dose x1 prn

**OR**

Discontinue Tylenol and Oxycodone; Start Norco or Tramadol per home Rx
*Recommended Protein Intake is 1.5 gram/kg

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<th>Kg</th>
<th>Grams of Protein</th>
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<tr>
<td>35 kg</td>
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<td>95 kg</td>
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<td>105 kg</td>
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(Before surgery, pt will "carb load" with Powerade or Juice to help bowel motility after surgery.)

**Diet**

**Day of Surgery:**
- **Advance from NPO to clears if no nausea**
- Begin bowel med regimen (colace, miralax, senna)
- If alert, encourage CHEWING GUM TID x 20 minutes to stimulate bowel motility!

**Post-op Day# 1-3:**
- **Advance from clears to regular diet SLOWLY**
- Encourage CHEWING GUM TID x 20 minutes to stimulate bowel motility!
- Monitor abdomen for distention, encourage more po fluids and walking if distended and not passing gas
- Educate pt and family on adequate oral intake goal
  - Most teenagers need 6-8 cups per day, averaging 3-4 oz per hr while awake
- Encourage ordering Ensure clear or regular Ensure if not wanting to eat much
  - Nurses may order Ensure Clear and Ensure per Standard of Care
- Educate pt and family that protein and adequate calories are ESSENTIAL for healing
  - The recommended protein intake amount after major surgery is 1.5 grams per kg of weight.
  - Place a Dietitian Consult if you feel the pt is not getting enough calories or protein by POD #2 for family education

*Note: A bowel movement is NOT required for discharge home. If by POD #2, the patient is nauseated and still does not have adequate intake, then review orders & discuss with PA/Dr the need for suppository or enema administration.
**Equipment**

- **Foley** placed in OR. **Monitor for adequate output q2h, minimum of 0.5 mL/kg/hr.**
  - If UOP is low, **bladder scan** prior to contacting PA to ensure bladder is not full; move tubing up and down or turn pt as needed to drain properly.
  - Provide **catheter care per protocol** with No-Rinse Peri Foam q12h.
  - **DC'd POD #1 at 0600am, IF orders written**; contact PA if no orders to dc

- **Monitor for adequate output q2h, minimum of 0.5 mL/kg/hr.**
  - If UOP is low, **bladder scan** prior to contacting PA to ensure bladder is not full; move tubing up and down or turn pt as needed to drain properly.

- **Measure urine in hat/urinal** after foley removed

- **Hemovac or JP Drain** possibly in place. **Empty q4h and record.**
  - Call PA if output greater than 50 mL over 2 hrs.
  - Ensure tubing is padded. Watch for kinking in tubing EVERY time the pt turns to the other side.
  - **Usually dc'd POD #2-3,** if output low enough over 24 hrs (varies by pt)

- **Sequential Compression Devices (SCD's)** MUST be worn for DVT prophylaxis.
  - Call for **machine from SPD** upon admit to room. Sleeves should be on pt from the OR.
  - **Highest risk for DVT is the first night after surgery.** Explain to pt and family the importance of wearing SCD's whenever in bed.
  - Watch for **erythema from sleeves** causing pressure/friction, especially behind knees, tops of feet, & around ankles. Pad w/ mepilex borders prn.
  - **May dc when pt is walking three times daily.**

- **Continuous pulse ox** while PCA in place. **Keep O2 saturations above 92%.**
  - Add oxygen via NC if needed. **Notify RT and CAA if oxygen applied and do thorough neuro exam to assess for over-sedation r/t narcotics.**
  - Rotate site of probe q8h and document site change.
  - **May dc when PCA dc'd on POD#1-2, IF pt wakes easily from sleep;** continue to monitor for over-sedation from oral pain meds
Focused Assessment

- **Vital Signs** Full set of VS q2h x 12hr, then q4h (confirm in orders)
  - (per protocol, continue HR, RR, O2 sat q2h x first 24hr IF PCA still in place)
  - Call PA if SBP <85mmHg with persistent high tachycardia (report last lab values and current UOP to determine hypovolemia vs. over-sedation)
  - Call CAA if RR below 10 breaths per minute

- **NV assessments** of upper and lower extremities q2h x 12 hr minimum, then q4h
  - Must WAKE up patient for proper assessment
    1) Check for numbness/tingling to all fingers/toes (report any changes)
    2) Check hand squeeze strength (report extreme weakness or inequalities between sides)
    3) Check ankle strength with flexion and extension (report extreme weakness or inequalities between sides)

- **Labs**: Review preop and peri-op labs and compare to vital sign stability
  - DCMC Spine Team: CBC, BMP on POD#1; H&H on POD#2-3 (dc'd if stable)
  - Dr. Geck: see orders daily; usually CBC and coag's d/t research project

- **Basic Neuro assessments** q2h x24 hrs d/t initiation of PCA and other pain meds
  - Check for over-sedation r/t narcotics; pt should be able to stay awake to answer simple questions and participate in NV asmts
  - Call CAA for concerns of over-sedation (report low RR & pinpoint pupils as well)

- **Monitor Dressing** for saturation q4h and reinforce prn (see 'Skin Health')

- **Abdominal Assessment**: monitor for distention and firmness; encourage chewing gum TID and walking/sitting in chair; review laxative orders and start early with prn meds for constipation
*Reinforce the key concepts from the A-B-C-D-S and how they apply at home throughout EVERY shift whenever you are teaching the patient and family.

- **Activity**: Gradually increase walking and amount of time sitting in chair. No bending, twisting, lifting more than 5 pounds. No riding on things with constant vibrations. No sports until cleared by doctor.

- **Big Breaths**: Continue to increase number of walks and sitting in chair to help with lung function. May use IS to help keep lungs clear until activity back to normal. Contact PCP if wet cough develops.

- **Control Pain**: Continue prescribed pain medications, while gradually weaning off the narcotics first. Pain level should be low enough to still be active and walk. Refer to Narcotic Weaning Chart provided at discharge.

- **Diet**: Getting enough calories, fluid, and protein is essential to the healing process. Eat balanced diet with fruits and vegetables with 6-8 cups of liquid to help with constipation. Getting enough protein can be hard. Adding high protein shakes is recommended. Refer to the Nutrition page in "A Guide to Spine Surgery."

- **Skin Health**: Remove dressing as instructed by Dr (time varies by surgeon preference). Monitor daily for increased redness or swelling or new/persistent drainage from incision. No ointments or lotions on incision while healing.

  *Call your doctor's office or PA on-call for:
  - Uncontrolled pain
  - Increased numbness/tingling to fingers or toes
  - Increased redness, swelling, or new or persistent drainage from incision
  - Fever over 101.4
  - Persistent vomiting (3 or more times in a row)
  - No bowel movement in 7 days
  - Unable to void in 12 hrs or sudden incontinence
**Skin Health**

- **Head-to-Toe Skin Assessment:** q12h
  - Monitor for any areas of erythema or skin irritation caused by pressure from bony prominences or medical devices or excess moisture
  - Document Braden Q score qshift per protocol
  - Initiate Skin PowerPlan if BQ 22 or below; document turning q2h

- **Incision Dressing Assessment:** q4h
  - Monitor for increased drainage and ensure dressing remains occlusive and intact after turning
  - If leaking from edges, reinforce with gauze/tega or mepilex borders and notify PA if reinforced more than once
  - Complete dressing changes by PA/Dr only

- **Hemovac or JP Drain** possibly in place. **Empty q4h and record.**
  - Call PA if output greater than 50 mL over 2 hrs.
  - Ensure tubing is padded. Watch for kinking in tubing EVERY time the pt turns to the other side.
  - Usually dc'd POD #2-3, if output low enough over 24 hrs (varies by pt)
  - Pt's with drains may or may not need antibiotics while in place; double check with PA if antibiotics automatically dc'd in 24 hrs and drain is still in place; once drain is removed, antibiotics should be dc'd as well