

Part I: Recognizing RELEVANT Clinical Data

History of Present Problem:

Sheila Dalton is a 52-year-old woman who has a history of chronic low back pain and COPD. She had a posterior spinal fusion of L4-S1 today. She had an estimated blood loss (EBL) of 675 mL during surgery and received 2500 mL of Lactated Ringers (LR). Pain is currently controlled at 2/10 and increases with movement. She was started on a hydromorphone patient-controlled analgesia (PCA) with IV bolus dose of 0.1 mg and continuous hourly rate of 0.2 mg. Last set of VS in post-anesthesia care unit (PACU) P: 88; R: 20; BP: 122/76; requires 4 liters per n/c to keep her O2 sat >90 percent. You are the nurse receiving the patient directly from the PACU.

Personal/Social History:

Sheila is divorced and currently lives alone in her own apartment. She has two grown children from whom she is estranged.

What data from the histories are RELEVANT and have clinical significance to the nurse?

RELEVANT Data from Present Problem:	Clinical Significance:
<ul style="list-style-type: none"> • Posterior spinal fusion • COPD • Oxygen • Pain 	<ul style="list-style-type: none"> • Posterior spinal fusion is important because she just had this surgery done. Therefore, there are lots of post-operation complications that can take place. • COPD is significant because this indicates she already has breathing issues, which can be a side effect after surgery. • Oxygen is important to note because this will require close monitoring. • While her pain seems well controlled now, it will need to be continuously monitored.
RELEVANT Data from Social History:	Clinical Significance:
<ul style="list-style-type: none"> • Divorced/lives alone and on her own/estranged relationship with kids 	<ul style="list-style-type: none"> • It seems that she has no close relationships. This brings up the possibility that she is lonely.

Patient Care Begins—Arrives from PACU to Surgical Floor

Current VS:	P-Q-R-S-T Pain Assessment (5th VS):	
T: 100.2 F/37.9 C (oral)	Provoking/Palliative:	Movement/lying still
P: 110 (regular)	Quality:	Ache
R: 24	Region/Radiation:	Lumbar-incisional
BP: 98/50	Severity:	6/10-gradually increasing
O2 sat: 88% 4 liters per n/c	Timing:	Continuous since arrival from PACU

What VS data are RELEVANT and must be recognized as clinically significant by the nurse?

RELEVANT VS Data:	Clinical Significance:
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<ul style="list-style-type: none"> Respirations Blood pressure Oxygen 	<ul style="list-style-type: none"> Her respirations are high. This is significant because this may mean she is not getting enough oxygen. Her blood pressure is low. This is important to know because we want to prevent shock. Her oxygen is low. Even though she has COPD and is on oxygen, this still needs to be monitored.
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Current Assessment:	
GENERAL APPEARANCE:	Appears uncomfortable, body tense, frequent grimacing—last used PCA 10 minutes ago
RESP:	Breath sounds clear with equal aeration ant/post but diminished bilaterally, non-labored respiratory effort, occasional moist–nonproductive cough
CARDIAC:	Pale-pink, warm and dry, no edema, heart sounds regular—S1S2, pulses strong, equal with palpation at radial/pedal/post-tibial landmarks
NEURO:	Alert and oriented to person, place, time, and situation (x4)
GI:	Abdomen soft/non-tender, bowel sounds hypoactive and audible per auscultation in all 4 quadrants, c/o nausea
GU:	Foley catheter secured, urine clear/yellow, 100 mL the past two hours
SKIN:	Skin integrity intact, skin turgor elastic, no tenting, dressing in place with no drainage noted

What assessment data are RELEVANT and must be recognized as clinically significant by the nurse?

RELEVANT Assessment Data:	Clinical Significance:
<ul style="list-style-type: none"> General appearance Respirations GI 	<ul style="list-style-type: none"> Her appearance and last use of the PCA pump are indicative of her being in pain, which makes sense since her surgery. This is significant because her pain will need to be monitored. Her breath sounds are diminished bilaterally. This is significant as there are potential lung complications that come from post surgery, such as atelectasis or pneumonia. The nurse needs to be aware of breathing exercises to give to the patient. Since she also has a moist cough, this may be solved with breathing exercises too. Her bowel sounds are hypoactive. The nurse will need to monitor. It is important to make sure that she will be able to pass flatus, which will indicate that there is no complete blockage.

Diagnostic Results:

Basic Metabolic Panel (BMP)					
	Na	K	Gluc.	Creat.	
Current:	134	3.8	148	0.9	
Most Recent:	136	3.9	98	1.1	
Complete Blood Count (CBC)					
	WBC	HGB	PLTs	% Neuts	
Current:	11.8	10.4	220	85	

Most Recent:	7.2	14.2	258	68	
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What data must be interpreted as clinically significant by the nurse? (*Reduction of Risk Potential/Physiologic Adaptation*)

RELEVANT Diagnostic Data:	Clinical Significance:	TREND: Improve/Worsening/Stable:
<ul style="list-style-type: none"> ● Glucose ● WBC ● HGB ● % Neutrophils 	<ul style="list-style-type: none"> ● Her glucose level has raised. This is important because we do not want to send her into a glucose episode, ● Her white blood cell count has worsened. This is important because this could indicate an infection. ● Before her surgery, normal. However, with her blood loss, it has worsened. This is significant because this will effect her oxygen levels. ● Her neutrophils have raised, which may signify an infection. 	<ul style="list-style-type: none"> ● Her glucose worsened.. This could be because of stress. ● Her white blood cell count has hightened after the surgery. ● Her HGB levels decreased. ● Her neutrophil count increased.

Part II: Put it All Together to THINK Like a Nurse!

1. After interpreting relevant clinical data, what is the primary problem?

(*Management of Care/Physiologic Adaptation*)

Problem:	Pathophysiology in OWN Words:
<ul style="list-style-type: none"> ● post-surgical infection 	<ul style="list-style-type: none"> ● A post-surgical infection occurs when an organism, such as a bacteria, virus, or fungi, gets inside the surgical incision and multiplies, causing harm to the individual. Even though surgical procedures remain extremely sterile and work in a sterile field, an incision into the body means an increased risk for an infection. The patient is indicating signs of an infection—increased white blood cell count, increased neutrophils, increased glucose, and increased pain. Her body is attempting to fight off her infection.

Collaborative Care: Medical Management

2. State the rationale and expected outcomes for the medical plan of care. (*Pharm. and Parenteral Therapies*)

Medical Management:	Rationale:	Expected Outcome:
Hydromorphone PCA—Settings: *Bolus: 0.1–0.3 mg every 10” *Continuous: 0.1–0.3 mg *Max every 4 hours: 6 mg Continuous pulse oximetry Ondansetron 4 mg IV push	<ul style="list-style-type: none"> ● The reasoning behind this pain medication is because of her spinal surgery. Her recent pain rating was a six out of ten. ● The continuous pulse oximetry is done because she is on painkillers. Respirations can slow significantly. ● Surgery in general and even pain medications can make patients feel nauseous. This medication is ordered for that specific reason. ● She has COPD, so her oxygen is low already. Titrating the oxygen till she gets up to at least 	<ul style="list-style-type: none"> ● With the pain medication, her pain will be well controlled, with her pain being rated at most a three out of ten. ● The expected outcome of her pulse oximetry is that the nursing staff will be aware of the oxygen levels and will

<p>every 4 hours prn nausea</p> <p>Titrate O2 to keep sat >90%</p> <p>Incentive spirometer (IS) 5–10x every hour while awake</p> <p>0.9% NS 100 mL/hour IV</p> <p>Clear liquids/advance diet as tolerated</p> <p>Apply lumbar orthotic brace when up in chair or ambulating</p>	<p>90% ensures that she is getting the appropriate amount of oxygen.</p> <ul style="list-style-type: none"> • After surgery, there is an increased risk for atelectasis or pneumonia because the anesthesia is trapped in the lungs. The incentive spirometer will encourage the patient to breathe this out and prevent the collapse of the alveoli. • Since she lost blood during the surgery and her blood pressure is low, the normal saline will help increase the actual blood volume. Thus, she still gets fluids which helps prevent her from going into shock. • A clear liquid diet will allow her to eventually transition to the advanced diet. It is something light and easy and will not be upsetting to the gastrointestinal tract. • Spinal surgeries are risky but beneficial. Because of the potential dangers, it is important to keep her in a brace. This will support her back and her spinal cord. It will also help protect her spinal cord as well. 	<p>intervene when necessary.</p> <ul style="list-style-type: none"> • The expected outcome of the Zofran will be to keep her nausea under control to the point that she does not feel nauseous. • The expected outcome for the titration of oxygen will be to keep her oxygen levels at least 90%. • The expected outcome of the incentive spirometer is that she will use it every five to ten minutes and will not get pneumonia or atelectasis. • The expected outcome for the saline is that her blood pressure will rise. • The clear liquid diet will be successful in that she can tolerate it well and she will transition over to her normal diet. • She will wear the brace when walking and sitting to support her back, so there are no complications post operations.
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Collaborative Care: Nursing

3. What nursing priority (ies) will guide your plan of care? (Management of Care)

<p>Nursing PRIORITY:</p>	<ul style="list-style-type: none"> • Pain control • Antibiotics 	
<p>PRIORITY Nursing Interventions:</p>	<p>Rationale:</p>	<p>Expected Outcome:</p>

<p>1.) Antibiotics: She will need to start antibiotics so get rid of the infection.</p> <p>2.) Pain control: She will be administered her pain medication.</p>	<p>1.) If the infection is not handled, nothing will improve, not the pain or her vital signs.</p> <p>2.) Pain is an unpleasant feeling. This needs to be done immediately, so she can recover.</p>	<ul style="list-style-type: none"> ● The antibiotic will clear out the infection, so she can move forward in her recovery. ● The client will be able to rate her pain at a much lower scale and to something that she feels is tolerable.
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4. What psychosocial/holistic care PRIORITIES need to be addressed for this patient? (Psychosocial Integrity/Basic Care and Comfort)

<p>Psychosocial PRIORITIES:</p>	<ul style="list-style-type: none"> ● Comfort measures ● Emotional support ● Spiritual care 	
<p>PRIORITY Nursing Interventions:</p>	<p>Rationale:</p>	<p>Expected Outcome:</p>
<p>CARING/COMFORT: <i>How can you engage and show that this pt. matters to you?</i></p> <p>Physical comfort measures:</p>	<ul style="list-style-type: none"> ● Because this patient went through a painful surgery, she will need someone, like the nurses, to care and comfort her. Something as simple as just listening can and will make all the difference. ● It is important to care for the physical needs of a patient because even though they may not be home, we have to bring home to them. This can be accomplished by warming them up or cooling them down, getting them their meals, or giving them their medications, 	<ul style="list-style-type: none"> ● The patient will be very appreciative to the care that the nurses gave her by the end of her stay in the hospital. ● The patient will be fed and comfortable and will verbalize their appreciation.
<p>EMOTIONAL SUPPORT: <i>Principles to develop a therapeutic relationship</i></p>	<ul style="list-style-type: none"> ● Because she does not have any close connections, the nurses will need to be there to support her. Hospitals are very isolating in general because it requires people to come to them, not the other way around. Especially in her case, she does not have anyone, so she will feel isolated. The nurses will need to be there to give her emotional support. 	<ul style="list-style-type: none"> ● The patient will be engaging in conversation and feel that someone was always there for her at the end of stay.
<p>SPIRITUAL CARE/SUPPORT:</p>	<ul style="list-style-type: none"> ● For some people, like me, they find comfort in religion or spirituality. Offering this service may provide peace and comfort to the patient. 	<ul style="list-style-type: none"> ● The outcome would be that she utilized this service however way

		she feels it needs to be used.
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5. What educational/discharge priorities need to be addressed to promote health and wellness for this patient and/or

family? (*Health Promotion and Maintenance*)

- This patient seems isolated. It will be important that there is someone to take care of her, either family or a home health nurse. She will need to fully understand and communicate back the need for the lumbar support. She will also need to understand her limitations. I am not familiar with this surgery, but I am going to assume no heavy lifting, no bending down in weird positions, and maybe even no driving. She will also need to understand pain management. The spinal cord and vertebrae hold a lot of nerves. Even some pain will spread rapidly throughout the body, so it needs to be managed.