SHEILA DALTON, 52 YEARS UNFOLDING REASONING CASE STUDY:STUDENT POST-OP PAIN MANAGEMENT 1 & 2: CARDIAC ARREST

PRIORITY Setting: Which Orders Do You Implement First and Why?

Care Provider Orders:	Order of Priority:	Rationale:
1. Hydromorphone PCA 2. Continuous pulse oximetry 3. Ondansetron (Zofran) 4 mg IV push every 4 hours prn nausea 4. Titrate O2 to keep sat >90% 5. Incentive spirometer (IS) 6. Apply lumbar orthotic brace when up in chair or ambulating 7. Clear liquids/advance diet as tolerated	Continuous pulse oximetry, Titrate O2 to keep sat >90%, Incentive spirometer, Clear liquids, advance diet as tolerated	ABC's Airway, breathing, and circulation, as well as nutrition and fluids

Medication Dosage Calculation:

Medication/Dose:	Mechanism of Action:	Volume/time frame to Safely Administer:	Nursing Assessment/Considerations:
Ondansetron 4 mg IV push (4mg/2 mL vial)	It's a serotonin antagonist meaning its mechanism of action is blocking the serotonin receptors in the CTZ. This reduces the communication to the vomiting center in the brain and decreases nausea and vomiting the patient experiences.	**IV Push: Volume every 15 sec?**	Assess dizziness and drowsiness that might affect gait, balance, and other functional activities. Report balance problems and functional limitations to the physician and nursing staff and caution the patient and family/caregivers to guard against falls and trauma.

Collaborative Care: Nursing

3. What nursing priority(ies) will guide your plan of care? *(if more than one-list in order of PRIORITY)*

Airway, breathing, and circulation. nutrition, fluids, and elimination. pain and comfort

4. What interventions will you initiate based on this priority?

Nursing Priority: *Impaired gas exchange*	Nursing Interventions:	Rationale:	Expected Outcome:

SHEILA DALTON, 52 YEARS UNFOLDING REASONING CASE STUDY:STUDENT POST-OP PAIN MANAGEMENT 1 & 2: CARDIAC ARREST

6. ***What is the worst possible/most likely complication to anticipate?***

The patient becomes dehydrated and or stops breathing due to low O2 stats.

7. ***What nursing assessments will identify this complication EARLY if it develops?***

The trend of values going down, skin turgor, and respiratory assessments

8. ***What nursing interventions will you initiate if this complication develops?***

Call a code/ rapid response team and initiate airway

9. ***What psychosocial needs will this patient and/or family likely have that will need to be addressed?***

Ms. Dalton's priority psychosocial needs will likely be security needs, love and belonging needs, self-esteem needs, and self-actualization needs. Since her family is not present or involved in her life, Ms. Dalton will rely on the healthcare staff for these needs.

10. ***How can the nurse address these psychosocial needs?***

Since Ms. Dalton does not have close family members nearby, she will rely on the nursing staff for many of her psychosocial needs. I can address these by ensuring her safety and involvement in her care, initiating hourly rounding and educating her about each step of her care, treating her with respect and dignity, and promoting her independence.

Evaluation:

Evaluate your patient's response to nursing and medical interventions during your shift. All physician orders have been implemented that are listed under medical management.

One Hour Later…

You recognized the need to increase the hydromorphone PCA and have increased the bolus dose to 0.2 mg per physician order shortly after Sheila arrived to the unit. You have instructed her to use the PCA as frequently as needed, placed cold packs to her incision prn, provided clear liquids with the instructions to take it slow and call the nurse if she feels any nausea. You had her sit up in the chair with the brace and instructed her in proper technique to use the incentive spirometer (IS).

Current VS:	**Most Recent:**	**Current PQRST:**	
T: 99.6 F/37.6 C (oral)	**T:** 100.2 F/37.9 C (oral)	**P**rovoking/Palliative:	Movement/minimize movement
P: 82 **(**regular)	**P:** 110 **(**regular)	**Q**uality:	Ache
R: 16	**R:** 24	**R**egion/Radiation:	Incisional
BP: 110/62	**BP:** 98/50	**S**everity:	2/10
O2 sat: 92% 2 liters per n/c	**O2 sat:** 88% 4 liters per n/c	**T**iming:	Continuous

Current Assessment:	
GENERAL APPEARANCE:	Resting comfortably, appears in no acute distress, appears to be sleeping but arouses easily when awakened
RESP:	Breath sounds clear with equal aeration but remain diminished bilaterally, non-labored respiratory effort, IS volume 750 mL initially–currently 1250 mL

SHEILA DALTON, 52 YEARS UNFOLDING REASONING CASE STUDY:STUDENT POST-OP PAIN MANAGEMENT 1 & 2: CARDIAC ARREST

CARDIAC:	Pink, warm and dry, no edema, heart sounds regular with no abnormal beats, 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 audible per auscultation in all 4 quadrants

SHEILA DALTON, 52 YEARS UNFOLDING REASONING CASE STUDY:STUDENT POST-OP PAIN MANAGEMENT 1 & 2: CARDIAC ARREST

SHEILA DALTON, 52 YEARS UNFOLDING REASONING CASE STUDY:STUDENT POST-OP PAIN MANAGEMENT 1 & 2: CARDIAC ARREST

Medical Management: Rationale for Treatment & Expected Outcomes

I recognize that most students/new nurses have not had ACLS training or exposure to this certification in nursing school. It is important for the new nurse to understand the most common ACLS algorithms as it is relevant to clinical practice. If and when ACLS certification as a registered nurse is taken, this case study will have provided practice of this essential skill! Please recognize that doing this case study does not qualify for ACLS interventions in practice! You must be officially certified to actually intervene with these measures in a code.

Nurses who are BLS certified can have an active part in the code such as chest compressions; pulse check; bag ventilation; and vital sign checks. Nurses should feel that they can work within their scope and certification. So many times, nurses who are not ACLS certified will not even do those things that are taught in the BLS certification course.

But there is a place for a nurse who is not ACLS certified during a code that is an important role…the RECORDER. Every crash cart has a simple 1-2 page form that documents the code and is self-explanatory. Though this role should ultimately be done by a certified ACLS nurse when one arrives, until then begin documentation and remain present in the room so that you as the primary nurse can communicate to the code team and physician the patient's story and what led up to the code. ***Once the code team arrives, the role of the primary nurse is to contact physician, family, and pastoral care to update on patient status and assist with care.***

Care Provider Orders:	Rationale:	Expected Outcome:
ACLS Priorities: • ABCs & Check responsiveness • Activate emergency response system and AED • Circulation • Defibrillation • Disability	ensure a patent airway and adequate ventilation. Patient is not able to spontaneously breathe or is unresponsive – we must help the patient breathe. A physician, nurse anesthetist, or respiratory therapist may place the ET tube. It is vital to confirm the placement of the ET tube and in the proper position of the trachea ABGs assess ventilation and oxygenation	Ventilation is improved and respiratory rate is within normal limits of 12-20 breaths per minute. Oxygenation is improved and is above 90% on 100% oxygen. Patient cardiovascular function is stable and respiratory function stable.

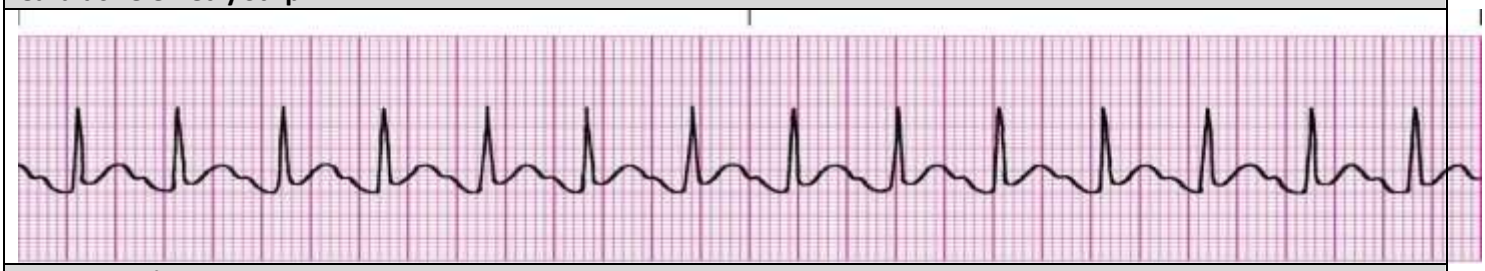
Medication Dosage Calculation:

Medication/Dose:	Mechanism of Action:	Volume/time frame to Safely Administer:	Nursing Assessment/Considerations:
Epinephrine **1:10,000** **1 mg/10 mL IV/IO every 3-5" push**	Accumulation of cAMP at beta-adrenergic receptors. Both beta 1 and 2 receptors are affected producing bronchodilation. Alpha adrenergic agonist property resulting in vasoconstriction.	**10 mL syringe** **Administer each 1 mg (10 mL) IV Push: Volume every 15 sec? 2.5mL**	Assess lung sounds, respiratory pattern, pulse, and BP before administration and during peak of medication. Monitor pulmonary function tests Observe for paradoxical bronchospasm (wheezing) – withhold if occurs notify HCP Observe for rebound bronchospasm and tolerance after 3 treatments Monitor ECG, chest pain, HR >110, and HTN; hemodynamic parameters May increase blood glucose and decrease potassium Monitor for hypovolemia, nasal congestion, and signs of overdose Monitor IV site for infiltration, phlebitis, or allergic reaction

SHEILA DALTON, 52 YEARS UNFOLDING REASONING CASE STUDY:STUDENT POST-OP PAIN MANAGEMENT 1 & 2: CARDIAC ARREST

TEN minutes post-arrest:

After two doses of epinephrine and amiodarone bolus and the third defibrillatory unsynchronized shock at 360 joules, the following rhythm is present on the monitor:

Cardiac Telemetry Strip:

Interpretation:
Clinical Significance:
Nursing Priority Intervention:

Interpretation: *V-fib*
Clinical significance: The patient was in ventricular fibrillation and eventually brought back a spontaneous pulse with drug therapy and defibrillation. The patient has cardiac rhythm back however it is tachycardic, therefore we need to try to return it to a beat between 60-100**.**
Nursing Priority Intervention: It will be critical to continue to take vital signs, monitor for any other signs and symptoms, and have a continuous ECG. Provide oxygen to help decrease the workload on the heart. Assess acid base levels, ABGs, and electrolyte levels for any abnormalities and possible causes for dysrhythmia.

The in-house physician running the code orders a stat ABG right after she is successfully resuscitated and is now intubated. You obtain the following results:

Arterial Blood Gases:	**Current:**	**High/Low/WNL?**
pH (7.35–7.45)	7.15	low
pO2 (80–100)	64	low
pCO2 (35–45)	78	high
HCO3 (18–26)	22	WNL
O2 sats (>92%)	90%	low
Oxygen delivery	100%	WNL

What lab results are RELEVANT and must be recognized as clinically significant by the nurse?

RELEVANT Lab(s):	**Clinical Significance:**

SHEILA DALTON, 52 YEARS UNFOLDING REASONING CASE STUDY:STUDENT POST-OP PAIN MANAGEMENT 1 & 2: CARDIAC ARREST

Hgb 10.2 (low) Platelets 148 (low) Neutrophils 85% (high)	- Hgb has been lowered. There was less oxygen being circulated throughout the blood due to the fact that the lungs were not working/pulmonary function and circulation was decreased. - Platelets have decreased in amount which can affect the patient's ability to clot or bleed. The amiodarone that was given to the patient several times prior to the MI can have adverse	- Hgb worsening - Platelets worsening - Neutrophils worsening WBC stable

SHEILA DALTON, 52 YEARS UNFOLDING REASONING CASE STUDY:STUDENT POST-OP PAIN MANAGEMENT 1 & 2: CARDIAC ARREST

Caring and the "Art" of Nursing

1. ***What is the patient and FAMILY likely experiencing/feeling right now in this situation?***

The patient may not be feeling much right now due to their unresponsiveness but if they were alert and oriented, I would assume they would be frightened and anxious. This scenario is a critical life-threatening event that can end very poorly if not acted on as soon as possible. Educating the family on the patient's status and providing emotional support for them and the patient is important.

2. ***What can you do to engage yourself with this patient's experience and show that he/she matters to you as a person?***

Although the patient is unresponsive, respecting them as though they are still alert and oriented is important to make them feel like their life matters, because it does. Telling the patient when you are in the room, telling them what you are doing every step of the way, providing therapeutic touch when necessary, and continuing patient daily care and hygiene will make them feel like they matter.

Use Reflection to THINK Like a Nurse

Reflection-IN-action (Tanner, 2006) is the nurse's ability to accurately interpret the patient's response to an intervention in the moment as the events are unfolding to make a correct clinical judgment and transfer what is learned to improve nurse thinking and patient care in the future.

1. ***What did I learn from this scenario?***

This scenario assisted me in learning how to organize and understand the full aspect of care for a post-operational patient. I was able to use all my resources, prior knowledge, and developing nurse intuition in order to make inferences about my patient's care. In this scenario, I was able to promote my own independence by applying knowledge that I have learned about the nursing process, individualized patient care, pain-relief, and peri-operational care. Overall, I felt that this scenario allowed for knowledge expansion and affirmation.

2. ***What would I do differently (if applicable) in this situation to prevent this outcome?***

SHEILA DALTON, 52 YEARS UNFOLDING REASONING CASE STUDY:STUDENT POST-OP PAIN MANAGEMENT 1 & 2: CARDIAC ARREST

I would have been more on top of the patient's pain management and persistent about pain assessments. It would have been more important to utilize nonpharmacological pain management interventions in correlation with hydromorphone and attempted to reduce the amount used