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| <p style="text-align: center;">Medications</p> <p>Ibuprofen tablet 400 mg Q6. The classes are analgesics and NSAIDS. This is used for pain management and a pain assessment should be done prior to administration.</p> <p>Tylenol tablet 500 mg Q4. The classes are analgesics and nonopioid. This is used for my patient as a pain management and a pain assessment should be done prior to administration.</p> <p>The patient had D5- 0.9% NaCl 80mL/hour fluids.</p> <p>Ondansetron IV 4mg daily PRN. The classes for this is antiemetic and 5-HT3 receptor antagonist. Prior to administration the nurse should review the patient's labs and check the patient alertness.</p> <p style="text-align: right;">(LexiDrug)</p> | <p style="text-align: center;">Demographic Data</p> <p>Admitting diagnosis: Pneumothorax</p> <p>Age of client: 14</p> <p>Sex: Female</p> <p>Weight in kgs: 43 kg</p> <p>Allergies: NKA</p> <p>Date of admission: 2/6/25</p> | <p style="text-align: center;">Pathophysiology</p> <p>Disease process: During pneumothorax air leaks into the space between the lungs and chest wall along with the plural space causing partial or completely collapsed lung.</p> <p>S/S of disease: Shortness of breath, fast breathing, shallow breathing, coughing, tachycardia, and low saturation.</p> <p>Method of Diagnosis: The are two common diagnosis methods of doing a chest x-ray and a physical examination.</p> <p>Treatment of disease: For a small pneumotaches typically will resolve its self. A large pneumotaches requires insertion of chest tube to remove air, hospitalization observation and oxygen therapy. (MayoClinic)</p> |
| | <p style="text-align: center;">Admission History</p> | |

Patient went to memorial express care prior to admission. Patient was sent to their Emergency Department, CT completed their to find their was a mass on the patient lung. The patient lung started collapsing, was started on O2, chest tube was inserted and was transferred to Carle Hospital.

| Relevant Lab Values/Diagnostics | Medical History | Active Orders |
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| <p>The only diagnostic test that was completed was a chest x-ray but the results had not been sent back yet.</p> | <p>Previous Medical History: Asthma, Spontaneous PTX, Chronic RSV until 5 years old.</p> <p>Prior Hospitalizations: 4 months old for collapsed lung.</p> <p>Past Surgical History: Chest tube placement and bronchoscopy.</p> <p>Social needs: Parents.</p> | <p>The patient had an order for daily chest tube care this would be for infection prevention and placement confirmation. The incentive spirometer is an active order to get the lung functioning and prevent farther collapsing. The patient has IV access for pain meds and emergencies. The patient also has an order for respiratory therapy for continuation of getting the lung functioning properly.</p> |

| Assessment | |
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| General | The patient was alert and oriented times four. The patient was well groomed and put together. |
| Integument | The skin was clean, dry and intact. No lesions, bruises or bumps. Chest tube placed on the side, site was clean, dry, and intact. Capillary refill was less than 3 seconds. Skin color is normal for race. Hair is normal and clean. No clubbing or cyanosis. Skin turgor is normal. |
| HEENT | All symmetrical, no deviations, no rashes, lesions or lumps. |
| Cardiovascular | Clear S1, S2 no murmur, gallops or rubs. Palpable at 5 th intercostal space at MCL. Normal rate and rhythm. |
| Respiratory | Normal rate and pattern but dimensioned. No wheezes, crackles or rhonchi. |
| Genitourinary | Patient has not urinated as my patient. Patient encouraged to keep drinking to keep hydrated. |
| Gastrointestinal | Abdomen is soft, non-tender, no masses. Chest tube is clean, dry and intact. No BM on shift, patient taking MiraLAX to help. |
| Musculoskeletal | ROM full range, hand grips, pedal pulses, pulls all demonstrated normal. Equal strength in on extremities. |
| Neurological | Patient is alert and orientated times four. |
| Most recent VS (highlight if abnormal) | <p>Time: 1542</p> <p>Temperature: 97.8 F</p> <p>Route: Oral</p> <p>RR: 22</p> <p>HR: 97</p> <p>BP and MAP: 102/57, 76</p> <p>Oxygen saturation: 98%</p> <p>Oxygen needs: Nasal cannula with humidity, 1L</p> |
| Pain and Pain Scale Used | 5 on a scale 0 to 10 before pain meds administered. |

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| <p align="center">Nursing Diagnosis 1</p> <p>Gas Exchange related to collapsed lung as evidenced by decreased oxygen saturation (Phelps, 2022).</p> | <p align="center">Nursing Diagnosis 2</p> <p>Acute Pain related to pleural irritation as evidenced by verbal reports of pain and guarding behavior (Phelps 2022).</p> | <p align="center">Nursing Diagnosis 3</p> <p>Anxiety related to sudden onset of health condition as evidenced by restlessness and verbal expressions of concern (Phelps, 2022).</p> |
| <p align="center">Rationale</p> <p>The collapse of the lung in spontaneous pneumothorax leads to reduced surface area for gas exchange, causing decreased oxygen levels in the blood. Monitoring oxygen saturation and providing supplemental oxygen can help maintain adequate oxygenation (Taylor et al., 2022).</p> | <p align="center">Rationale</p> <p>Pleural irritation from the collapsed lung can cause significant pain, which may be reported by the patient and observed through behaviors like guarding. Effective pain management is crucial to improve comfort and facilitate breathing (Taylor et al., 2022).</p> | <p align="center">Rationale</p> <p>The sudden and unexpected nature of a spontaneous pneumothorax can be frightening, especially for a young patient. This can result in anxiety, which may manifest as restlessness and verbal expressions of worry. Providing reassurance and clear information about the condition and treatment can help reduce anxiety (Taylor et al., 2022).</p> |
| <p align="center">Interventions</p> <p>Intervention 1: Provide oxygen therapy as prescribed to maintain adequate oxygen saturation levels.</p> <p>Intervention 2: Regularly assess respiratory rate, depth, and effort, and monitor oxygen saturation using pulse oximetry to detect any changes in the patient's condition.</p> | <p align="center">Interventions</p> <p>Intervention 1: Provide analgesics as prescribed to manage pain and improve comfort.</p> <p>Intervention 2: Assist the patient in finding a comfortable position that may reduce pain, such as sitting upright or leaning forward.</p> | <p align="center">Interventions</p> <p>Intervention 1: Offer reassurance and stay with the patient to provide a calming presence.</p> <p>Intervention 2: Explain the condition, treatment plan, and procedures in a way that is understandable to the patient to help reduce fear and uncertainty.</p> |
| <p align="center">Evaluation of Interventions</p> <p>Evaluate by monitoring oxygen saturation levels to ensure they remain within the normal range. Evaluate by observing for any signs of respiratory distress, such as increased respiratory rate, use of accessory muscles, or cyanosis, and ensuring these signs decrease or are absent.</p> | <p align="center">Evaluation of Interventions</p> <p>Evaluate by asking the patient to rate their pain on a scale before and after medication administration to ensure pain levels decrease. Evaluate by observing the patient's comfort level and any reduction in pain behaviors after repositioning.</p> | <p align="center">Evaluation of Interventions</p> <p>Evaluate by assessing the patient's verbal and non-verbal cues for signs of decreased anxiety, such as reduced restlessness and calmer demeanor. Evaluate by asking the patient to repeat back information or ask questions to ensure they understand their condition and treatment, which can help reduce anxiety.</p> |

Ibuprofen: $10 \text{ mg} \times 43 \text{ kg} = 430 \text{ mg/dose}$, safe.

Tylenol: $10 \text{ mg} \times 43 \text{ kg} = 430 \text{ mg}$, $15 \text{ mg} \times 43 \text{ kg} = 645 \text{ mg/dose}$, safe.

Fluids: 80 mL/hour. 43kg

10kg= 1000mL.

10kg= 500mL

23kg= 960 mL. = 1960mL/day

| | | What do you expect? | What did you observe? |
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| Erickson's Psychosocial Developmental Stage | Identity vs Role Confusion | During this stage, you can expect a 14-year-old to experience a lot of changes. They might start exploring different interests, styles, and social groups. It's common for them to question their beliefs and values as they seek to establish their own identity. You might notice them becoming more independent, wanting to make their own choices, and sometimes pushing boundaries. It can also be a time of emotional ups and downs as they navigate friendships and peer pressure (Taylor et al., 2022). | The nursing student observed a normal behaving 14 year old female. The freshman in high school was talking about her interest in boys and school dances. The patient was closer to her mom when it came to doing medical things which also is common for anyone who is ill. |
| Piaget's Cognitive Developmental Stage | Formal Operational Stage | During the Formal Operational Stage, you can expect a 14-year-old to show improved problem-solving skills and the ability to think about abstract ideas. They might start to understand complex concepts like justice, love, and freedom. They can also think more scientifically, using logic and hypothetical reasoning to solve problems. This is also a time when they might become more idealistic, thinking about how the world could be and developing their own opinions on various issues (Taylor et al., 2022). | The nursing student did not observe much of this besides the love. The patient and mother were discussing her liking a boy and to tell him that she likes him. She reacted like a young teenage girl who likes a boy. |
| Age-Appropriate Growth & Development Milestones | 1. Cognitive Development. They can think abstractly and reason logically. This includes understanding hypothetical situations and engaging in more complex problem-solving (Taylor et al., 2022). | | |

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| | <p>2. Social Development. They start forming stronger, more complex friendships and peer relationships. They may seek independence from their parents and look for their own identity within their social groups (Taylor et al., 2022).</p> <p>3. Emotional Development. They experience a wide range of emotions and may have mood swings. They are also beginning to understand and express more nuanced emotions and may start to develop a sense of empathy (Taylor et al., 2022).</p> | | |
| <p>Age-Appropriate Diversional Activities</p> | <p>1. Sports and Physical Activities like Engaging in team sports like soccer, basketball, or individual activities like swimming or running can be great for physical fitness and social interaction (Taylor et al., 2022).</p> <p>2. Creative Hobbies like activities like drawing, painting, playing a musical instrument, or writing can help them express themselves and develop their creative skills (Taylor et al., 2022).</p> <p>3. Social Activities like spending time with friends, whether it's through organized events like school clubs or casual hangouts, can help them build social skills and strengthen friendships (Taylor et al., 2022).</p> | | |

References (3):

LexiDrug, (on Carle website only)

MayoClinic.com (off Carle computer)

Phelps, L. (2022). *Nursing Diagnosis Reference Manual*. 12th Ed.

Taylor, C. R., Lynn, P. B., & Bartlett, J. L. (2022). *Fundamentals of Nursing: The Art and Science of Person-centered Care*. 10th Ed.