

Student Developed Simulation Scenario Storyboard

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| <p>Identified Problem/Scenario Topic and Related Resources:</p> <p>Pediatric Pneumonia</p> <p>Textbook Chapter 37</p> <p>Ben-Joseph, E. P. (Ed.). (2023, October). <i>Pneumonia (for parents) - nemours kidshealth</i>. KidsHealth. https://kidshealth.org/en/parents/pneumonia.html</p> | <p>Desired Overall Goal:</p> <ol style="list-style-type: none"> 1. Identify signs of respiratory distress 2. Identify the cause of the respiratory distress 3. Intervene properly 4. Evaluate that the child is no longer in respiratory distress |
| <p>Case Summary:</p> <p>Five year old female patient, Suzie Jenkins recently transferred from ER to Pediatric Unit for monitoring; caregiver is present. She begins to tilt her head back and then lean forward to rest arms on her knees. You observe an increased effort to breathe, decreased O2 sats, decreased blood pressure, and increased pulse rate.</p> | <p>Expected Interventions of Students: (Minimum of 5 required.)</p> <ol style="list-style-type: none"> 1. Do focused respiratory assessment 2. Obtain vital signs 3. Auscultate lung sounds and correctly identify crackles and wheezes |
| <p>Supplies:</p> <ol style="list-style-type: none"> 1. Sim Child and Caregiver 2. Pediatric Stethoscope 3. O2 mask and tubing 4. IV (Instructors) 5. Albuterol Inhaler- 2 Inhalations q 4-6 hrs. 6. Oral Amoxicillin 125mg/5mL 7. Ibuprofen-IV 10mg/kg (not to exceed 400mg) q 4-6 hrs for pain or fever as needed. | <ol style="list-style-type: none"> 4. Apply supplementary O2 via simple face mask 5. SBAR communication with doctor 6. Administer medications using the six rights of medication administration 7. Communicate effectively with the patient and caregiver 8. Provide correct education about interventions to patient and |

caregiver

NCLEX Questions

1. Suzie was brought back to the hospital 5 days later by her mom stating that “she started to get better but then got sick again.” Which statement by her mom indicates further teaching is needed.
 - a. I should get Suzie vaccinated to prevent her from getting sick in the future.
 - b. I stopped giving Suzie her antibiotic when she started to feel better.
 - c. I quit smoking to limit her exposure to secondhand smoke.
 - d. I have instructed my other children to wash their hands frequently to prevent them from getting sick as well.

Answer: B: Antibiotics should be taken in until completion to prevent reinfection with antibiotic-resistant bacteria.

2. Suzie’s mom states “I am scared that Suzie will get pneumonia again, what should I look for?” Which of the following are signs and symptoms of pneumonia that the nurse should educate Suzie’s mom about? (Select all that apply)
 - a. Fever
 - b. Cough
 - c. Headache
 - d. Difficulty breathing
 - e. Abdominal pain

Answer: A, B, D, E: Signs and symptoms of pneumonia include fever, chills, rapid breathing, grunting or wheezing during breathing, difficulty breathing, vomiting, chest pain, belly pain, decrease in activity, and loss of appetite (Nemours Kids Health, 2023)

Case Flow (15-20 Minute Simulation Time)

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| Initiation of Scenario: | | | | | | | | | | | | | | |
| Case Study: | | | | | | | | | | | | | | |
| Patient hand-off report received | | | | | | | | | | | | | | |
| Patient is hysterical; crying in pain while holding chest with a frantic appearance. Caregiver is with patient, concern fills their face | | | | | | | | | | | | | | |
| Patient is focused on discomfort in their chest | | | | | | | | | | | | | | |
| Student should make introduceries at the basis of patient development; implement QUEST competent care | | | | | | | | | | | | | | |
| Vital Signs | T | 101.6 | HR | 180 | RR | 45 | BP | 86/42 | SpO2 | 88% | Pain | 7/10 | BS | 100 |
| Cardiac | Pulse elevated and bounding | | | | | | | | | | | | | |
| Respiratory | Wheezes and crackles on inspiration and expiration, shortness in breath with retractions followed | | | | | | | | | | | | | |
| Neuro | Decreased LOC, A1+Ox2. | | | | | | | | | | | | | |
| Skin | Cool and clammy upon assessment; generalized pallor and cyanotic tones noted on fingertips and mouth | | | | | | | | | | | | | |
| GI | WNL | | | | | | | | | | | | | |
| GU | WNL | | | | | | | | | | | | | |
| Other | Weight: 43 lbs. | | | | | | | | | | | | | |
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| First Frame: | | | | | | | | | | | | | | |
| Case Study: | | | | | | | | | | | | | | |
| Lung and airway focused assessment. | | | | | | | | | | | | | | |
| Vital signs obtained. | | | | | | | | | | | | | | |
| Semi-fowler's position initiated. | | | | | | | | | | | | | | |
| Provider called for initiation of oxygen therapy | | | | | | | | | | | | | | |
| Patient family calmed, consoled, and involved in the patient's care. | | | | | | | | | | | | | | |
| Vital Signs | T | 101 | HR | 180 | RR | 45 | BP | 86/42 | SpO2 | 88% | Pain | 7/10 | BS | 100 |

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| | | .6 | | | | | | | | | | | | |
| Cardiac | Pulse elevated and bounding | | | | | | | | | | | | | |
| Respiratory | Wheezes with inspiration and expiration, shortness in breath with retractions followed | | | | | | | | | | | | | |
| Neuro | Decreased LOC, AI+Ox2. | | | | | | | | | | | | | |
| Skin | Cool and clammy upon assessment; generalized pallor and cyanotic tones noted on fingertips and mouth | | | | | | | | | | | | | |
| GI | WNL | | | | | | | | | | | | | |
| GU | WNL | | | | | | | | | | | | | |
| Other | NKA | | | | | | | | | | | | | |
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| Second Frame | | | | | | | | | | | | | | |
| Case Study: | | | | | | | | | | | | | | |
| Call provider for new medicinal orders. | | | | | | | | | | | | | | |
| STAT order simple face mask 6 LPM; SpO2 > 95% | | | | | | | | | | | | | | |
| Reassess neuro, lung/airway patency, and skin | | | | | | | | | | | | | | |
| Vital Signs | T | 101 | HR | 150 | RR | 30 | BP | 89/72 | SpO2 | 95% | Pain | 7/10 | BS | 100 |
| | | .6 | | | | | | | | | | | | |
| Cardiac | Normalized with initiation of oxygen therapy; WNL | | | | | | | | | | | | | |
| Respiratory | Normalized with initiation of oxygen therapy; WNL | | | | | | | | | | | | | |
| Neuro | Normalized with initiation of oxygen therapy; WNL | | | | | | | | | | | | | |
| Skin | Cool and clammy upon reassessment; cyanosis improved, pallor continued | | | | | | | | | | | | | |
| GI | WNL | | | | | | | | | | | | | |
| GU | WNL | | | | | | | | | | | | | |
| Other | Temperature state remains elevated. | | | | | | | | | | | | | |
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| Third Frame | | | | | | | | | | | | | | |
| Case Study: | | | | | | | | | | | | | | |

Administer 2 puffs albuterol inhaler; inhalations now and Q4-6H

Amoxicillin 125 mg/5mL - oral

Ibuprofen IV 10 mg/kg; now and Q4-6H for pain PRN

Skin reassessed

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|--------------------|----------|-------------|-----------|------------|-----------|-----------|-----------|--------------|-------------|------------------------|-------------|-------------|-----------|------------|
| Vital Signs | T | 98.2 | HR | 118 | RR | 22 | BP | 89/72 | SpO2 | 97%[^] | Pain | 3/10 | BS | 100 |
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| Cardiac | WNL |
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| Respiratory | WNL, remains >95% |
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| Neuro | Al+Ox4 |
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| Skin | Skin improves; dry, warm, and intact. Pallor d/c, diaphoresis d/c. |
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| GI | WNL |
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| GU | WNL |
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| Other | <p>Monitor bowel function, antibiotic may cause diarrhea; antibiotic can be given with or without meal. Contact HCP if rash appears.</p> <p>Temperature improves after administration of antibiotic therapy and ibuprofen.</p> |
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Scenario End Point

Case Study:

Interventions are re-evaluated; discharge instructions are implemented

Patient and caregiver must be educated of s/s of respiratory distress, proper inhaler use, s/s infection, intensity of exercise or play, and interventions to prevent a recurrence of infection

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|--------------------|----------|-------------|-----------|-----------|-----------|-----------|-----------|--------------|-------------|------------|-------------|-------------|-----------|------------|
| Vital Signs | T | 98.6 | HR | 98 | RR | 24 | BP | 89/72 | SpO2 | 98% | Pain | 2/10 | BS | 100 |
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| Cardiac | WNL |
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| Respiratory | WNL |
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| Neuro | WNL |
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| Skin | WNL |
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| GI | WNL |
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| GU | WNL |
| Other | Patient and caregiver should be re-evaluated for proper understanding of discharge education pertaining to infection control interventions |
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| Debriefing Questions: <ol style="list-style-type: none"> 1. What is one thing you did well? 2. What can we do to improve this simulation experience? | |

Patient Report: A five-year-old female came into the ER with a caregiver with c/o shortness of breath, fever, and chest pain. She was experiencing pallor on the previous assessment. Pt frantic and inconsolable. Last vital signs: T: 101.6, HR: 180, R: 45, BP: 86/42, SpO2: 88%, Pain: 7/10, FSBS: 100. Retractions noted.

Additional information, Medical History:

Patient data:

DOB: 10/21/2018

MR#: xx1234

Prior medical history: Asthma, earaches, hand foot, and mouth.

Allergies: Peanut allergy

Social history: Jehovah's Witness

Physician's Orders

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| NAME: Jenkins, Suzie _____ STATUS: SIGNED DATE ORD: XX/XX/XX ORD PHYS: Dr. Dunbar _____ ATTENDING: Dr. Dolittle ____ AGE: <u>5</u> years old | ROOM: _____ MR# xx1234 DOB: 10/21/2018 DATE: 10/26/2023 |
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| Date/Time | |
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| XX/XX/XX | Admit to: PICU |
| | Diagnosis: Pneumonia |
| | VS every: Q2H |
| | Activity: Activity as tolerated |
| | Diet: Regular |
| | I&O: Qshift |
| | IV: 24 gauge |
| | Medications: Albuterol inhaler 2 puffs Q4-6H, oral amoxicillin 125mg/5mL |
| | Other: |
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| | |
| | Dr. Dunbar |

| √ | Start | Medication | Dose | Next Sched ↓ | History | Assoc |
|----------------|----------------|-------------------|------------------|--------------|-----------|---------|
| | Stop | | Route | Ack | Monograph | Asmnt |
| | Current Status | | Frequency | Adjustment | Co-sign | Ref Err |
| | | | | | | |
| | xx/xx/xxxx | Albuterol Inhaler | 2 Inhalations | | | |
| | xx/xx/xxxx | | Oral | | | |
| | Active | | Q4-6 hrs. | | | |
| | | | | | | |
| | xx/xx/xxxx | Oral Amoxicillin | 125mg/mL | | | |
| | xx/xx/xxxx | | Oral | | | |
| | Active | | Q12H | | | |
| | | | | | | |
| | xx/xx/xxxx | Ibuprofen | 10mg/kg | | | |
| | xx/xx/xxxx | | IV | | | |
| | Active | | Q4-6H | | | |
| | | | | | | |
| | xx/xx/xxxx | O2 mask | 2L | | | |
| | xx/xx/xxxx | | Simple face mask | | | |
| | Active | | PRN SpO2<94% | | | |
| | | | | | | |
| | xx/xx/xxxx | | | | | |
| | xx/xx/xxxx | | | | | |
| | Active | | | | | |
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| Label Comments | | | | | | |
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| | xx/xx/xxxx | | | | | |
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