

Treating Little Lungs: Simulating Acute Pediatric Care for a West African Immigrant Child with Community-Acquired Pneumonia

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BACKGROUND/PURPOSE

- Due to the challenges of available pediatric clinical settings and varied patient acuity, simulation is often a helpful tool to enhance pediatric clinical experiences
- Two senior-level nursing students and two faculty members collaborated on a community-acquired pneumonia (CAP) simulation for a diverse infant with a family member
- The simulation scenario expectations for students were to demonstrate knowledge caring for a diverse pediatric patient and family
- The students were to identify signs of increasing respiratory distress, conduct a complete respiratory assessment, identify when to call the provider, skills, attitudes, and behaviors when, provide patient and family education, assess patient access to treatment/resources, interpret lab values, medication administration and manage primary secondary IV lines
- The students were involved in all aspects of the construction and refinement of the case
- Several practice sessions occurred with group debriefing and further modification of the scenario. The simulation went live for multiple audiences at a conference

OBJECTIVES AND CASE SCENARIO

OBJECTIVES

1. Conduct a focused pediatric respiratory assessment
2. Identify signs of respiratory distress (SP02, COLOR, RR, HR, WOB)
3. Notice patient deterioration and apply rescue interventions
4. Efficiently and effectively prepare and administer medications as ordered to the patient
5. Demonstrate cultural humility when caring for diverse families

CASE

Pediatric Respiratory Distress

- Toddler; Anna Rose Douglas DOB 1/3/2022
- Family recently immigrated to RI from West Africa (Lagos, Nigeria)
- Lives at home with two other siblings and mother and father
- Allergies: No Known Drug/Food Allergies
- Immunizations: up to date except current flu vaccine; missed 12 month well-child check up
- Past Medical History: Congenital Diaphragmatic Hernia; NICU x 3 weeks; G-tube until 2 months; 6-month check-up WNL
- History of Present illness: cough, stridor, wheezing getting worse over 2 days; unable to eat or drink this morning; brought to ER

Report to Participating Students:

Time: The time is 7:30 am. Anna Rose Douglas is a 18th month old female who was admitted to the ER at 6:30 this morning with a cough and difficulty breathing. She is accompanied by her mom, Bianca. Currently, Anna is receiving blow-by oxygen via simple mask. Her vital signs are T 99.4 – HR 120 – RR 34 – BP 92/74. SPO2 is 90%. A CBC with Diff and a PCXR have been completed and you are awaiting results. Anna's mother, Bianca is at the bedside and fretful.

ONANIAN HOSPITAL SIMULATED

MR# 100008453588 Patient: Anna Rose Douglas
DOB: 01/03/2022 Allergies: NKDA
Mother: Bianca Douglas 508-208-XXXX
Father: Terrell Douglas 508-208-XXXX



Admitting Diagnosis: Respiratory Distress r/o CAP
FAST TEAM - #555

Admitting Provider Orders

1. Maintain oxygen saturation (SPO2) 92% or above
2. STAT: CBC with Diff, HIV, Portable Chest X-ray – Done SL at 6:40 am
3. Acetaminophen Suppository 325 mg rectal every 8 hours for fever >102
4. IV fluids: Normal Saline at 30 mL/hr.

STUDENTS IN ACTION!



LAB RESULTS

Lab Results: Anna Rose Douglas DOB 01/03/2023 MR# 100008453588

CBC

Hemoglobin	13.0	10-16
Hematocrit	31.2	30-47
RBC	7.1	6.4-10.4
MCV	48	41-52
MCHC	34	32.8- 38.6
RDW	28	24-33
Platelet	120	100-250

Differential

WBC	17,000!	4-11
Segs	8.1!	2-7
Lymph	9!	105
Mono	2!	0.2-0.6
Eosin	0.8	0.2-0.8
Baso	0	0-0.2

Radiology

Exam Date: 6/14/2023

Portable Chest X-Ray



Interpretation: A/P projection shows right lower consolidate indicative of pneumonia. Diffuse presence of bronchial inflammation.

IMPLICATIONS FOR NURSING PRACTICE

- Simulation education is needed in today's complex healthcare environment. It can provide learning in a safe space that can promote student understanding and competence which improves patient safety. Simulation strategies can enhance other clinical experiences.
- The students reported that the experience was invaluable and allowed for on-the-spot critical thinking and clinical judgment skill practice.
- They applied their nursing knowledge to increase their confidence in pediatric assessment skills, medication administration, teamwork abilities, communication, and interactions with diverse pediatric patients and families.
- This collaborative learning opportunity can enrich pediatric nursing practice and health outcomes for children and their families.

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