Acute Asthma Exacerbation Unfolding Simulation

Hannah Pennington, BSN, RN, CPN
Faculty Advisor: Cecilia Wilson, Ph.D., RN, CPN

Target Audience: Nursing Students and Nurse Educators
Estimated Simulation Time: 30 minutes for each setting totaling 90 minutes for the entire unfolding simulation
Estimated Debriefing Time: 60 minutes

General Objectives:

1. Demonstrates clinical judgment and critical thinking skills including: truth-seeking, analyticity, open-mindedness, systematicity, inquisitiveness, maturity, and self-confidence (Noone & Seery, 2018).
2. Demonstrates therapeutic communication with patient and family
3. Demonstrates effective teamwork
4. Demonstrates effective interprofessional communication
5. Prioritizes patient safety measures
6. Prioritizes appropriate nursing interventions
7. Implements clinician orders appropriately
8. Evaluates patient's response to interventions

Scenario-Specific Objectives

1. Recognizes abnormal findings of asthma exacerbation and hyperglycemia
2. Demonstrates correct administration of oral, intravenous, subcutaneous, and nebulizer medications
3. Plans for relevant patient education and teaching
4. Demonstrates clear communication of clinical findings and abnormal lab values to clinician
5. Implements appropriate oxygen management interventions
6. Demonstrates correct interpretation of sliding scale insulin dosing based on patient blood glucose level

Acknowledgements

Marla Panzer, MSN, RN
Nursing Instructor
Abilene Christian University
Abilene, TX

Matthew Pennington, PharmD
Pharmacist
James McCoy's Drugstore
Abilene Regional Medical Center
Abilene, TX

Vincent Leonard Van Acht, MD
Family Medicine Physician
Abilene Diagnostic Clinic
Abilene Regional Medical Center
Abilene, TX

Educational Purpose

This simulation scenario was developed to help determine the impact of an unfolding high-fidelity simulation on critical thinking skills in nursing students. The need for additional clinical critical thinking experiences in the wake of limited clinical site spots for students, as observed by Guimond, Foreman, and Werb (2019), is an influencing factor for the development of the unfolding simulation to provide an additional critical thinking opportunity for nursing students. As noted by Carvalho et al. (2017), critical thinking skills are necessary in order for student and graduate nurses to deliver a high level of safe care for patients and families. To optimize realism, as suggested by Huffman, McNeil, Bismilla, and Lai (2016), interprofessional collaborative efforts were carried out to include registered nurses, a pharmacist, and a physician in the scenario development and review.

In addition to these influencing factors on the creation of the unfolding simulation, consideration was given to the anticipated changes to the NCLEX that will include next generation items focusing on better measurement of clinical judgment (NCSBN, 2019). The six layers of the NCSBN clinical judgment model were considered when constructing correct treatment checklists to evaluate students participating in the simulation scenario. The six layers of the NCSBN clinical judgment model include: recognizing cues, analyzing cues, prioritizing hypotheses, taking action, and evaluating outcomes (NCSBN, 2019).

2019 NCLEX-RN Test Plan Categories Considered in Scenario

1. **Safe and Effective Care Environment** (National Council of State Boards of Nursing, 2018)

- Management of care (National Council of State Boards of Nursing, 2018)
    - Initiate, evaluate, and update client plan of care
    - Organize workload to manage time effectively
    - Advocate for client rights and needs
    - Collaborate with interprofessional team members when providing client care
    - Maintain client confidentiality and privacy
    - Provide and receive hand off of care (report) on assigned client
    - Prioritize the delivery of client care

- Safety and infection control (National Council of State Boards of Nursing, 2018)
    - Assess client for allergies and intervene as needed (e.g., food, latex, environmental allergies)
    - Ensure proper identification of client when providing care
    - Verify appropriateness and accuracy of a treatment order
    - Facilitate appropriate and safe use of equipment
    - Apply principles of infection control (e.g., hand hygiene, aseptic technique, isolation, sterile technique, universal/standard precautions)

2. **Health Promotion and Maintenance** (National Council of State Boards of Nursing, 2018)
    - Provide care and education for the adult client ages 18 through 64 years
    - Educate client about health promotion and maintenance recommendations (e.g., physician visits, immunizations)
    - Assess client ability to manage care in home environment and plan care accordingly

3. **Psychosocial Integrity** (National Council of State Boards of Nursing, 2018)
    - Assess client's ability to cope with life changes and provide support
    - Incorporate client cultural practices and beliefs when planning and providing care
    - Assess family dynamics to determine plan of care
    - Provide care for a client experiencing grief or loss
    - Assess psychosocial, spiritual, and/or occupational factors affecting care and plan interventions
    - Use therapeutic communication techniques
    - Promote a therapeutic environment

4. **Physiological Integrity** (National Council of State Boards of Nursing, 2018)

- Basic care and comfort (National Council of State Boards of Nursing, 2018)

    - Assess client for pain and intervene as appropriate
    - Provide non-pharmacological comfort measures

- Pharmacological and parenteral therapies (National Council of State Boards of Nursing, 2018)
    - Perform calculations needed for medication administration
    - Evaluate client response to medication
    - Educate client about medications
    - Prepare and administer medications using rights of medication administration
    - Review pertinent data prior to medication administration (e.g., contraindications, lab results, allergies, potential interactions)
    - Evaluate appropriateness and accuracy of medication order for client
    - Monitor intravenous infusion and maintain site

- Reduction of Risk Potential (National Council of State Boards of Nursing, 2018)
    - Assess and respond to changes and/or trends in client vital signs
    - Perform diagnostic testing (e.g., electrocardiogram, oxygen saturation, glucose monitoring)
    - Monitor the results of diagnostic testing and intervene as needed
    - Insert, maintain, or remove a peripheral intravenous line
    - Evaluate responses to procedures and treatments
    - Recognize trends and changes in client condition and intervene as needed
    - Perform focused assessments
    - Educate client about treatments and procedures

Supplies Checklist

- ☐ Gloves
- ☐ Bedside Table
- ☐ Patient Chart
- ☐ Physician orders printed
- ☐ MAR printed
- ☐ CMP lab results printed
- ☐ CXR and 12-lead ECG results printed
- ☐ Correct treatment checklists printed
- ☐ Observation worksheets printed
- ☐ SPO2 Monitor
- ☐ SPO2 Probe
- ☐ Blood Pressure Cuff
- ☐ Nasal Cannula
- ☐ Thermometer
- ☐ Blood Glucose Monitor
- ☐ Face mask with nebulizer chamber
- ☐ IV Pump
- ☐ IV Start Kit and IV Catheter
- ☐ Primary IV tubing
- ☐ Alcohol Swabs
- ☐ Insulin needles
- ☐ 3ML syringes and needles for drawing up medication
- ☐ Albuterol 2.5mg/Ipratropium 0.5mg/3ml nebulizer solution
- ☐ Methylprednisolone 125 mg/2ml vial
- ☐ NovoLog 100 units/ml vial
- ☐ Methylprednisolone 40 mg/ml vial
- ☐ Lantus 100 units/ml vial
- ☐ Lisinopril 10mg tabs
- ☐ Metformin 500mg tabs
- ☐ Lovenox 40mg/0.4ml pre-filled syringe
- ☐ Acetaminophen 650 mg tabs
- ☐ Symbicort 160mcg/4.5mcg inhaler
- ☐ Set-up for live feed of simulation to be played in a separate room for students to observe

Simulator Prep Checklist

- [ ] Ensure Gaumard HAL Simulator is available
- [ ] Hospital Gown
- [ ] Female Wig
- [ ] Place bed in high-fowler’s position
- [ ] Place patient tripoding over bedside table
- [ ] Cut out patient ID and allergy band and attach it to HAL

Pre-Briefing Checklist

- ☐ **Orientation to Equipment:** vital sign and cardiac monitor, SPO2 monitoring, oxygen administration equipment including nebulizer, med cart with IV supplies, call light, phone to call clinician and other interprofessional team members, patient chart, paper MAR

- ☐ **Orientation to Simulator:** Gaumard HAL Simulator capabilities: lung and heart sounds, cyanosis, pulses, voice and response

- ☐ **Review student roles in the scenario:** primary nurse, secondary nurse, charge nurse

- ☐ **Review time allotment for each stage of the scenario**

- ☐ **Review and provide a copy of objectives to students**

- ☐ **Review timeline for the day:** assigned group order, observation of live feed, debriefing after completion of unfolding scenario

- ☐ **Review worksheet for students observing simulation on live feed**

- ☐ **Have students complete CCTDI Tool**

- ☐ **Answer any questions**

(Meakim et al., 2013)

California Critical Thinking Disposition Inventory Measurement Tool

- To be administered before participation in unfolding simulation and after participation
- CCTDI Tool must be ordered through Insight Assessments
- Students can complete the tool in paper form or via an online version
- A kit containing a manual and copy of the instrument can be purchased
- The tool has 75 statements in which the students rate their level of agreement or disagreement
- Booklets and answer forms are shipped from Insight assessments to facilitator and then the answer forms are sent back to Insight Assessments where they are scored and a data file will be sent back to the facilitator
- The online version is priced per student. The online system is available through a browser or app, and results are available instantly after students are done with the tool
- Insight Assessments requires that the facilitator contacts them for a price quote

(Laird, T. F. N., 2005; Insight Assessment, 2019)

Roles

- **ED:** Students: Primary RN, Secondary RN, and Charge RN
  Embedded participants: ED Physician

- **Med-Surg Night**: Students: Primary RN, Secondary RN, and Charge RN
  Embedded participants: Respiratory Therapist

- **Med-Surg Day**: Students: Primary RN, Secondary RN, and Charge RN
  Embedded participants: N/A

Dorothy Reynolds
Age: 57
Weight: 240 lbs.
Height: 5 ft 6 inches
DOB: 1/10/1963
Allergies: PCN, Codeine
Home Meds:

- Lantus 50 units SubQ at bedtime
- NovoLog SubQ per sliding scale at meal times
- Metformin 1000mg PO BID
- Lisinopril 20 mg PO daily
- Symbicort 160mcg/4.5mcg 2 puffs BID
- ProAir inhaler 1-2 puffs every 4-6 hours as needed for SOB
- Montelukast 10mg PO daily
- Rosuvastatin 20mg PO daily

Student Report

Dorothy Reynolds is a fifty-seven-year-old female brought to the Emergency Department (ED) by her neighbor. The patient has a history of asthma, diabetes mellitus type II, hypertension, hyperlipidemia, and obesity. The patient reports an increase in shortness of breath and chest tightness over the past 3 days prompting her to come to the ED. The patient's husband passed away one month ago and she lives alone at this time. The patient has a history of noncompliance with medications and states she hasn't been taking her medications regularly since her husband passed away. The patient has not been monitoring her blood glucose levels at home. The patient was admitted 10 months ago for diabetic ketoacidosis which required admission to the critical care unit.

Stage 1: ED (30 minutes)

Scenario Stage	Physiological State	Situation	Expected Student Performance
I 1800	Temperature: 98.8 F Blood Pressure: 152/89 Pulse: 105 Respiratory Rate: 30 O2 Sat: 83% on Room Air • Lung sounds: Diffuse wheezing. • Heart sounds: S1, S2 regular • Bowel Sounds: Normoactive • Pulses: 2+ in all extremities • Cap Refill: less than 3 seconds • Skin: Warm and dry to touch • Pain: 0/10 • PERRLA • Alert and oriented	Dorothy Reynolds is sitting in the bed tripoding over a bedside table. Her breathing is labored with accessory muscle use. Dorothy's neighbor is at bedside with her.	1. Conducts a focused respiratory assessment. 2. Sets up vital sign monitoring with SPO2 3. Recognizes abnormal findings: dyspnea, labored breathing, decreased SPO2, increased heart rate and respiratory rate 4. Initiates and prioritizes respiratory interventions 5. Applies nasal cannula at 2 LPM titrating up as needed 6. Uses therapeutic communication with patient and neighbor 7. Communicates effectively with team members
II 1815	Temperature: 98.8 F Blood Pressure: 154/86 Pulse: 110	ED physician is at bedside with patient. Dorothy is experiencing	1. Reports findings to and collaborates with ED physician

	Respiratory Rate: 28 O2 Sat: 92% on 6 LPM NC Blood glucose: 480 • Lung sounds: Diffuse wheezing. • Heart sounds: S1, S2 regular • Bowel Sounds: Normoactive • Pulses: 2+ in all extremities • Cap Refill: less than 3 seconds • Skin: Warm and dry to touch • Pain: 0/10 • PERRLA • Alert and oriented	little to no relief after the application of oxygen.	2. Interprets and implements orders given by physician 3. Establishes IV access 4. Administers methylprednisolone 125 mg IVP 5. Administers Albuterol 2.5mg/Ipratropium 0.5mg via nebulizer 6. Checks blood glucose level at bedside 7. Follows-up on lab, CXR, and 12-lead ECG orders 8. Uses therapeutic communication with patient and neighbor 9. Communicates effectively with team members
III 1830	Temperature: 98.8 F Blood Pressure: 146/82 Pulse: 108 Respiratory Rate: 24 O2 Sat: 92% on 6 LPM NC	Dorothy is experiencing some relief and decreased work of breathing following steroid and nebulizer administration.	1. Notifies physician of lab results including blood glucose of 480 2. Interprets and implements orders given by physician

	Blood glucose: 250 30 minutes after NovoLog admin • Lung sounds: Mild inspiratory/expiratory wheezing. • Heart sounds: S1, S2 regular • Bowel Sounds: Normoactive • Pulses: 2+ in all extremities • Cap Refill: less than 3 seconds • Skin: Warm and dry to touch • Pain: 0/10 • PERRLA • Alert and oriented		3. Administers 8 units of NovoLog 4. Rechecks blood glucose level 30 minutes after insulin administration
IV 1900			1. Receives order for pt transfer to the med-surg unit 2. Informs pt and neighbor of admission 3. Provides emotional support to pt 4. Gives report to night shift RN assuming care of pt on the med-surg unit

Dorothy Reynolds Response Guide (ED)

General	• My name is Dorothy Reynolds and my birthday is January 10, 1963 • I am allergic to codeine and Penicillin • I get really nauseated when I take codeine and I break out in hives when I take Penicillin • No I'm not in any pain, my chest is just really tight
Initial Assessment	• I've been having some trouble breathing the past 3 days but I didn't think it would get this bad. It got a lot worse today and I called my neighbor to bring me here • I know I should have been taking my medicines at home, but it has been so hard to remember to do things after I lost my husband. He helped me remember to do things • I just can't get a deep breath. Please help me • Am I going to be okay?
If nebulizer and IV methylprednisolone are administered	• What are you putting in my IV? What does that do? • Do you think I will get to go home after you give me that? I just really want to go home • I am starting to feel a little better after that breathing treatment you gave me • I think I would like to lie back now
If nebulizer and IV methylprednisolone are not administered	• It's getting a lot harder to breath now • Please help me! • I don't want to die. • Is there something you can give me to help me breath?

After blood glucose reading and order to administer insulin	• Yeah I haven't checked my blood sugar at home in a few days • It's been hard to do anything really after my husband died. • What kind of insulin are you giving me? I'm supposed to be taking that at home sometimes
After orders are received to admit Dorothy	• I really don't want to have to stay here, but I understand if I need to stay to get better • Thank you for helping me

ED Physician Response Guide (ED)

Receiving SBAR report from nursing students at bedside	• Tell me a little about what is going on with Mrs. Reynolds • Thank you for that report. I'm going to go ahead and put in a few orders. Keep her on the nasal cannula and titrate up to a max of 6LPM to keep her at or above 92%. Notify me of the blood glucose results
If the SBAR report does not include needed information	• Can you tell me more about ___?
During call about blood glucose results	• Thank you for that update. I'm going to put in an order for 8 units of NovoLog SQ X1 now. Go ahead and recheck the blood glucose level 30 minutes after administering the Novolog

Patient Armband

Reynolds, Dorothy
DOB: 01/10/1963 AGE: 57 YO F
MR# 8742676
Allergies: PCN, Codeine

Correct Treatment Checklist (ED)

Group Members: _____

- ☐ Wash hands
- ☐ Each group member introduces self
- ☐ Provide privacy
- ☐ Identify the patient with 2 identifiers
- ☐ Assess allergies
- ☐ Assess pain level
- ☐ Obtain BP, pulse, respiratory rate, temperature, SPO2
- ☐ Place patient on O2 beginning with 2LPM NC and increasing as appropriate for patient status
- ☐ Perform a focused respiratory assessment
- ☐ Recognize abnormal findings: decreased SPO2, tachypnea, dyspnea, tachycardia, wheezing
- ☐ Engage in therapeutic communication with patient
- ☐ Reports findings to ED physician at bedside using SBAR
- ☐ Receives and reviews clinician orders, also educating patient on new orders/medications
- ☐ Establishes IV access
- ☐ Administers nebulizer treatment or contacts respiratory therapist to administer treatment
- ☐ Administers methylprednisolone
- ☐ Checks blood glucose level at bedside
- ☐ Receives lab, ECG, and CXR results
- ☐ Communicates blood glucose level, lab, ECG, CXR results, and updated patient condition to physician using SBAR
- ☐ Receives and reviews new physician orders, also educating patient on new orders/medications
- ☐ Administers 8 units of NovoLog SQ to patient
- ☐ Records medication administration on MAR
- ☐ Rechecks blood glucose level 30 minutes after NovoLog administration
- ☐ Evaluates patient response to interventions
- ☐ Gives bedside report to nurses receiving patient on the med-surg unit for night shift

(National League for Nursing, 2010)

Initial ED Physicians Orders

PHYSICIANS ORDERS

DATE	HOUR	NURSE INITIAL	DANGEROUS ABBREVIATIONS U, IU, QD, QOD, MS, MSO_4, $MgSO_4$, Trailing Zero, and Lack of Leading Zero
Sunday	**1815**		**ED ORDERS**
			Continuous pulse oximetry
			Continuous cardiac monitoring
			Continuous oxygen per nasal cannula at 2LPM Titrate up to 6LPM to maintain SPO2 > 92%
			CXR 2 view frontal AP/Lateral STAT
			12 Lead ECG STAT
			CMP, CBC, Troponin STAT
			Peripheral IV insertion
			Vital Signs Q1H
			Blood glucose monitoring POC
			Albuterol 2.5mg/Ipratropium 0.5mg via nebulizer X1 NOW then Q1H PRN wheezing/SOB
			Methylprednisolone 125mg IVP X1 NOW
			---------- - **Michael Reyes, MD**
			Reynolds, Dorothy **DOB**: 01/10/1963 **AGE**:57 YO F **MR#** 8742676 **Allergies**: PCN, Codeine **ED Bed**: 21

ED Physicians Orders after POC Blood Glucose Check

PHYSICIANS ORDERS

DATE	HOUR	NURSE INITIAL	DANGEROUS ABBREVIATIONS U, IU, QD, QOD, MS, MSO_4, $MgSO_4$, Trailing Zero, and Lack of Leading Zero
Sunday	**1830**		**ED ORDERS**
			NovoLog 8 units SQ X1 now
			Recheck POC blood glucose in 30 minutes

			- **Michael Reyes, MD**
			Reynolds, Dorothy **DOB**: 01/10/1963 **AGE**:57 YO F **MR#** 8742676 **Allergies**: PCN, Codeine **ED Bed**: 21

ED Medical Administration Record - Sunday 0700-1900

Medication	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900
Albuterol 2.5mg/Ipratropium 0.5mg nebulizer X1 Now then Q1H PRN wheezing/SOB												1815	
Methylprednisolone 125mg IVP X1 NOW												1815	

Nurse's Printed Name	Signature	Initials

School of Nursing
Medication Administration Record

Reynolds, Dorothy
DOB: 01/10/1963 **AGE**: 57 YO F
MR# 8742676
Allergies: PCN, Codeine
ED Bed: 21

ED Medical Administration Record - Sunday 0700-1900

Medication	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900
NovoLog 8 units SQ X1 now												1830	

Nurse's Printed Name	Signature	Initials

School of Nursing
Medication Administration Record

Reynolds, Dorothy
DOB: 01/10/1963 **AGE**: 57 YO F
MR# 8742676
Allergies: PCN, Codeine
ED Bed: 21

Medication Labels for ED Group

Albuterol 2.5mg/Ipratropium 0.5mg/3ml Exp. 07/2021 For simulation use only.
Methylprednisolone 125 mg/2ml Exp. 07/2021 For simulation use only.
NovoLog 100 units/ml Exp. 07/2021 For simulation use only.

Chest X-Ray Results

Patient: Reynolds, Dorothy MR#: 8742676
DOB: 01/10/1963
Referring Physician: Michael Reyes, MD

Chest X-Ray 2 views:

Indication: History of asthma and shortness of breath X3 days.
Comparison: None
Findings: No acute infiltrates are identified. No consolidation. No presentation of pleural effusion or pneumothorax is identified. Heart size is normal.

Impression: No acute cardiopulmonary disease is identified.

Louis Carter, MD

CMP Results

Tests	Result	Flag	Units	Reference Interval
Glucose, Serum	**482**	**High**	mg/dL	64-100
BUN	14		mg/dL	7-20
Creatinine, Serum	1.1		mg/dL	0.8-1.2
eGFR If Non-African Am	70		mL/min/1.73	>59
eGFR if African Am	84		mL/min/1.73	>59
BUN/Creatinine Ratio	13			12-28
Sodium, Serum	140		mmol/L	136-144
Potassium, Serum	4.1		mmol/L	3.7-5.2
Chloride, Serum	102		mmol/L	101-111
Carbon Dioxide, Total	**32**	**High**	mmol/L	20-29
Calcium, Serum	8.9		mg/dL	8.7-10.3
Protein, Total, Serum	6.5		g/dL	6.0-8.5
Albumin, Serum	4.3		g/dL	3.5-4.8
Globulin, Total	2.5		g/dL	1.5-4.5
A/G Ratio	1.7			1.2-2.2
Bilirubin, Total	0.4		mg/dL	0.0-1.2
Alkaline Phosphatase	63		IU/L	39-117
AST (SGOT)	20		IU/L	0-40
ALT (SGPT)	24		IU/L	0-32

(Allina Health, 2017; Health Testing Centers, n.d.)

CBC with Diff/Platelet Results

Tests	Result	Flag	Units	Reference Interval
WBC	6.6		X10E3/uL	3.4-10.8
RBC	**4.07**	**Low**	X10E3/uL	4.14-5.80
Hemoglobin	14.8		g/dL	13.0-17.7
Hematocrit	40.2		%	37.5-51.0
MCV	82		fL	79-97
MCH	27.2		pg	26.6-33.0
MCHC	33.2		g/dL	31.5-35.7
RDW	14.2		%	12.3-15.4
Platelets	275		X10E3/uL	150-379
Neutrophils	57		%	Not Estab.
Lymphs	32		%	Not Estab.
Monocytes	8		%	Not Estab.
Eos	2		%	Not Estab.
Basos	1		%	Not Estab.
Neutrophils (Absolute)	3.9		X10E3/uL	1.4-7.0
Lymphs (Absolute)	2.4		X10E3/uL	0.7-3.1
Monocytes (Absolute)	0.6		X10E3/uL	0.1-0.9
Eos (Absolute)	0.2		X10E3/uL	0.0-0.4
Baso (Absolute)	0.0		X10E3/uL	0.0-0.2
Immature Granulocytes	0		%	Not Estab.
Immature Grans (Abs)	0.0		X10E3/uL	0.0-0.1

(Health Testing Centers, n.d.)

Troponin

Tests	Result	Flag	Units	Reference Interval
Troponin I	0.01		ng/ml	0.00-0.04

12 Lead ECG Results

SINUS TACHYCARDIA

Ventricular Rate: 120 BPM

PR Interval: 198 ms

QRS dur: 90 ms

QT/QTc: 289/360 ms

P-R-T axes: 89 93 57

(Digiulio, 2016)

Stage 2: Night Shift on the Med-Surg Floor (30 minutes)

Scenario Stage	Physiological State	Situation	Expected Student Performance
I 1915	Temperature: 98.8 F Blood Pressure: 140/76 Pulse: 95 Respiratory Rate: 24 O2 Sat: 94% on 6 LPM NC • Lung sounds: Mild inspiratory/expiratory wheezing. • Heart sounds: S1, S2 regular • Bowel Sounds: Normoactive • Pulses: 2+ in all extremities • Cap Refill: less than 3 seconds • Skin: Warm and dry to touch • Pain: 0/10 • PERRLA • Alert and oriented	Dorothy has just arrived to the room on the med-surg floor	1. Receives report from ED RN 2. Conducts a head to toe assessment 3. Retrieves an initial set of vital signs 4. Reviews new admission orders and implements 5. Educates pt on orders and medications 6. Maintains appropriate oxygen therapy
II 1930	Temperature: 98.8 F Blood Pressure: 142/85 Pulse: 90 Respiratory Rate: 22 O2 Sat: 98% on 6 LPM NC Blood glucose: 275	Dorothy is asking for a dinner tray.	1. Calls dietary to order dinner tray for patient. 2. Checks POC blood glucose and administers sliding

	• Lung sounds: Mild inspiratory/expiratory wheezing. • Heart sounds: S1, S2 regular • Bowel Sounds: Normoactive • Pulses: 2+ in all extremities • Cap Refill: less than 3 seconds • Skin: Warm and dry to touch • Pain: 0/10 • PERRLA • Alert and oriented		scale insulin based on results 3. Weans oxygen
III 2100	Temperature: 98.8 F Blood Pressure: 138/82 Pulse: 92 Respiratory Rate: 22 O2 Sat: 99% on 6 LPM NC (If oxygen has been weaned→ 96% on 4LPM NC; 92% on 2LPM NC) Blood glucose: 180 after dinner and sliding scale insulin administration (If sliding scale insulin was not administered before meal→ blood glucose is 385)		1. Administers 2100 medications: Lantus and Metformin 2. Rechecks blood glucose before administration of Lantus and Metformin
IV 0700	At the start of bedside report: Temperature: 98.8 F Blood Pressure: 140/82 Pulse: 85	Change of shift report. During bedside report, Dorothy has a coughing	1. Calls respiratory for Albuterol/Ipratropium nebulizer treatment.

	Respiratory Rate: 22 O2 Sat: 99% on 6 LPM NC (If oxygen has been weaned→ 96% on 4LPM NC; 92% on 2LPM NC) During coughing episode: Temperature: 98.8 F Blood Pressure: 150/95 Pulse: 115 Respiratory Rate: 30 O2 Sat: 92% on 6 LPM NC (If oxygen has been weaned→ 88% on 4LPM NC; 85% on 2LPM NC)	episode and states that she is feeling SOB.	2. Maintains appropriate oxygen therapy 3. Performs a focused respiratory assessment 4. Provides emotional support to pt

Dorothy Reynolds Response Guide (Night Shift Med-Surg)

General	• My name is Dorothy Reynolds and my birthday is January 10, 1963 • I am allergic to codeine and Penicillin • I get really nauseated when I take codeine and I break out in hives when I take Penicillin • No I'm not in any pain
Initial Assessment	• How much longer do I have to keep this thing in my nose? • I am starving. Is there any way I can get something to eat now? • I feel like I'm able to catch my breath better now. • The tightness in my chest is feeling a lot better too.
During medication administration	• I really need to be better about taking my medications so I don't end up in here again • Since my husband passed away last month, I just really haven't felt like leaving the house or doing anything. It is so lonely
During change of shift report at 0700	• I don't know where this cough is coming from. It is getting a lot harder to breath now • I can feel the chest tightness again • Please help me. I just really want to go home

Stage 3: Day Shift on the Med-Surg Floor (30 minutes)

Scenario Stage	Physiological State	Situation	Expected Student Performance
I 0730	Temperature: 98.8 F Blood Pressure: 148/88 Pulse: 105 Respiratory Rate: 24 O2 Sat: 94% on 6 LPM NC • Lung sounds: Mild inspiratory/expiratory wheezing. • Heart sounds: S1, S2 regular • Bowel Sounds: Normoactive • Pulses: 2+ in all extremities • Cap Refill: less than 3 seconds • Skin: Warm and dry to touch • Pain: 0/10 • PERRLA • Alert and oriented	Dorothy is experiencing relief from her SOB after nebulizer administration. Her work of breathing has decreased.	1. Receives report from Night Shift RNs 2. Reassess pt after nebulizer treatment 3. Conducts a head to toe assessment 4. Retrieves an initial set of vital signs 5. Reviews physicians orders and implements 6. Educates pt on orders and medications 7. Maintains appropriate oxygen therapy
II 0800	Temperature: 98.9 F Blood Pressure: 142/85 Pulse: 98 Respiratory Rate: 22 O2 Sat: 98% on 6 LPM NC Blood glucose: 250	Dorothy is asking for a breakfast tray.	1. Calls dietary to order breakfast tray for patient. 2. Checks POC blood glucose and administers sliding scale insulin based on results

	• Lung sounds: Mild inspiratory/expiratory wheezing. • Heart sounds: S1, S2 regular • Bowel Sounds: Normoactive • Pulses: 2+ in all extremities • Cap Refill: less than 3 seconds • Skin: Warm and dry to touch • Pain: 0/10 • PERRLA • Alert and oriented		3. Maintains appropriate oxygen therapy
III 0900	Temperature: 98.9 F Blood Pressure: 138/89 Pulse: 85 Respiratory Rate: 20 O2 Sat: 98% on 6 LPM NC • Lung sounds: Mild inspiratory/expiratory wheezing. • Heart sounds: S1, S2 regular • Bowel Sounds: Normoactive • Pulses: 2+ in all extremities • Cap Refill: less than 3 seconds • Skin: Warm and dry to touch • Pain: 0/10 • PERRLA • Alert and oriented	Dorothy is voicing concerns about remembering to take her medications at home and staying compliant with her medication schedule since her husband passed away.	1. Administers 0900 medications: lisinopril, Montelukast, metformin, Symbicort 2. Provides emotional support and education to patient about home medications

Dorothy Reynolds Response Guide (Day Shift Med-Surg)

General	• My name is Dorothy Reynolds and my birthday is January 10, 1963 • I am allergic to codeine and Penicillin • I get really nauseated when I take codeine and I break out in hives when I take Penicillin • No I'm not in any pain
Initial Assessment	• I'm starting to feel a little better after that breathing treatment • Do you think I will be able to go home today?
0800	• I feel like my breathing has gotten a lot better now. I really hope I get to go home today. • When will the doctor be by? I think I'm ready to order breakfast
During 0900 medication administration	• Can you tell me about what medications you are giving me? • My husband used to put my pills in a pill box for me, but now that he is gone I just haven't been doing it • I need to figure out a way to make sure I take all of these things at home. I just hate having to stick myself with that insulin needle all of the time

Correct Treatment Checklist Med-Surg Night Shift

Group Members:_____

- ☐ Receives report from ED nurses
- ☐ Wash hands
- ☐ Each group member introduces self
- ☐ Provide privacy
- ☐ Identify the patient with 2 identifiers
- ☐ Assess allergies
- ☐ Assess pain level
- ☐ Obtain BP, pulse, respiratory rate, temperature, SPO2
- ☐ Perform a head to toe and focused respiratory assessment
- ☐ Recognize abnormal findings: wheezing
- ☐ Reviews new admission orders and implements
- ☐ Educates patient on new orders and medications
- ☐ Engage in therapeutic communication with patient
- ☐ Weans oxygen as appropriate
- ☐ Calls dietary to order dinner tray for patient
- ☐ Checks POC blood glucose after ordering dinner tray and administers sliding scale insulin based on results
- ☐ Administers 0900 medications: lisinopril, Montelukast, metformin, Symbicort
- ☐ Records medication administration on MAR
- ☐ Gives change of shift report to oncoming dayshift nurses
- ☐ Recognizes change in patient status during shift change
- ☐ Titrates oxygen as appropriate to keep SPO2 > 92%
- ☐ Administers nebulizer treatment or contacts respiratory therapist to administer treatment
- ☐ Performs a focused respiratory assessment
- ☐ Provides emotional support to patient
- ☐ Evaluates patient response to interventions

(National League for Nursing, 2010)

Correct Treatment Checklist Med-Surg Day Shift

Group Members_____

- ☐ Receives report from night shift nurses
- ☐ Assists night shift nurses with interventions during patient status change during bedside report
- ☐ Wash hands
- ☐ Each group member introduces self
- ☐ Provide privacy
- ☐ Identify the patient with 2 identifiers
- ☐ Assess allergies
- ☐ Assess pain level
- ☐ Evaluate patient response to nebulizer treatment and increase in oxygen
- ☐ Obtain BP, pulse, respiratory rate, temperature, SPO2
- ☐ Perform a head to toe and focused respiratory assessment
- ☐ Recognize abnormal findings: wheezing
- ☐ Reviews orders and implements
- ☐ Educates patient on orders and medications
- ☐ Engage in therapeutic communication with patient
- ☐ Calls dietary to order breakfast tray for patient once stable
- ☐ Checks POC blood glucose after ordering breakfast tray and administers sliding scale insulin based on results
- ☐ Weans oxygen as appropriate
- ☐ Administers 2100 medications: Lantus and Metformin
- ☐ Records medication administration on MAR
- ☐ Provides emotional support and education to patient about home medications and concerns with medication compliance at home
- ☐ Evaluates patient response to interventions

(National League for Nursing, 2010)

PHYSICIANS ORDERS

DATE	HOUR	NURSE INITIAL	DANGEROUS ABBREVIATIONS J, IU, QD, QOD, MS, MSO_4, $MgSO_4$, Trailing Zero, and Lack of Leading Zero
Sunday	**1900**		Code status: Full code
			Admit to medical-surgical unit for observation
			Diagnosis: Unspecified asthma with (acute) exacerbation; Type 2 diabetes mellitus with hyperglycemia; Patient's other noncompliance with medication regimen
			1800 ADA diet
			Vital signs q 4 hr.
			Continuous pulse oximetry; notify physician if oxygen saturation level falls below 92%
			Titrate oxygen to maintain oxygen saturation levels at or above 92%
			Incentive spirometry every 4 hours
			Consult to respiratory therapy
			Consult to case management
			Routine I&O
			Activity as tolerated
			Blood glucose checks POC AC & HS and PRN
			Albuterol 2.5mg/Ipratropium 0.5mg/3ml nebulizer Q4H while awake Q1H PRN wheezing/SOB
			Methylprednisolone 40mg IVP Q8H
			LR 60 ml/hr. IV continuous
			Lisinopril 20 mg PO daily
			Montelukast 10mg PO daily
			Rosuvastatin 20 mg PO bedtime
			Metformin 1000 mg PO BID
			Lantus 50 units SQ at bedtime
			Lovenox 40 mg SQ daily
			NovoLog SQ per sliding scale at meal times-Moderate dosing
			Symbicort 160mcg/4.5mcg 2 puffs BID
			Acetaminophen 650 mg PO Q4H PRN pain/fever
			----------Derek Green, MD
			Reynolds, Dorothy **DOB**: 01/10/1963 **AGE**:57 YO F **MR#** 8742676 **Allergies**: PCN, Codeine **Bed:** 418

Medication Labels for Night/Day Shift Groups

Albuterol 2.5mg/Ipratropium 0.5mg/3ml Exp. 07/2021 For simulation use only.
Methylprednisolone 40 mg/ml Exp. 07/2021 For simulation use only.
Lantus 100 units/ml Exp. 07/2021 For simulation use only.
Lisinopril 10 mg Tabs Exp. 07/2021 For simulation use only.
Metformin 500 mg Tabs Exp. 07/2021 For simulation use only.
NovoLog 100 units/ml Exp. 07/2021 For simulation use only.
Symbicort 160mcg/4.5mcg Exp. 07/2021 For simulation use only.
Lovenox 40mg/0.4ml Exp. 07/2021 For simulation use only.
Acetaminophen 650 mg tabs Exp. 07/2021 For simulation use only.

Reynolds, Dorothy **DOB**: 01/10/1963 **AGE**:57 YO F **MR#** 8742676 **Allergies**: PCN, Codeine **Bed:** 418	LR 1000 mL Rate: 60 mL/hr Exp. 07/2021 For simulation use only.

Medical Administration Record - Sunday 1900-0700

Medication	1900	2000	2100	2200	2300	0000	0100	0200	0300	0400	0500	0600	0700
LR 125 ml/hr. IV continuous	1915												
Methylprednisolone 40mg IVP Q8H								0200					
Lantus 50 units SQ			2100										
Metformin 1000 mg PO BID			2100										
Rosuvastatin 20 mg at bedtime			2100										
Lovenox 40 mg SQ daily			2100										
Albuterol 2.5mg/Ipratropium 0.5mg/3ml nebulizer Q4H while awake				2200				0200				0600	
PRN Medication	**1900**	**2000**	**2100**	**2200**	**2300**	**0000**	**0100**	**0200**	**0300**	**0400**	**0500**	**0600**	**0700**
Albuterol 2.5mg/Ipratropium 0.5mg/3ml nebulizer Q1H PRN wheezing/SOB													
NovoLog SQ per sliding scale (moderate dosing) at meal times													
Acetaminophen 650 mg Q4H PRN pain/fever													

Nurse's Printed Name	Signature	Initials

School of Nursing

Medication Administration Record

Reynolds, Dorothy
DOB: 01/10/1963 **AGE**: 57 YO F
MR# 8742676
Allergies: PCN, Codeine
Bed: 418

Medical Administration Record - Monday 0700-1900

Medication	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900
LR 125 ml/hr. IV continuous													
Methylprednisolone 40mg IVP Q8H				1000									
Lisinopril 20 mg PO daily			0900										
Montelukast 10 mg PO daily			0900										
Metformin 1000 mg PO BID			0900										
Symbicort 160mcg/4.5mcg 2 puffs BID			0900										
Albuterol 2.5mg/Ipratropium 0.5mg/3ml nebulizer Q4H while awake				1000				1400				1800	
PRN Medication	**0700**	**0800**	**0900**	**1000**	**1100**	**1200**	**1300**	**1400**	**1500**	**1600**	**1700**	**1800**	**1900**
Albuterol 2.5mg/Ipratropium 0.5mg/3ml nebulizer Q1H PRN wheezing/SOB													
NovoLog SQ per sliding scale (moderate dosing) at meal times													
Acetaminophen 650 mg Q4H PRN pain/fever													

Nurse's Printed Name	Signature	Initials

School of Nursing
Medication Administration Record

Reynolds, Dorothy
DOB: 01/10/1963 **AGE**: 57 YO F
MR# 8742676
Allergies: PCN, Codeine
Bed: 418

Adult Sliding Scale for Insulin Aspart (NovoLog)

Blood Glucose (mg/dL)	LOW DOSE	MODERATE DOSE	HIGH DOSE
Less than 70	Initiate Hypoglycemia guidelines and notify provider	Initiate Hypoglycemia guidelines and notify provider	Initiate Hypoglycemia guidelines and notify provider
70-139	0 units	0 units	0 units
140-180	2 units subcutaneous	3 units subcutaneous	4 units subcutaneous
181-240	3 units subcutaneous	4 units subcutaneous	6 units subcutaneous
241-300	4 units subcutaneous	6 units subcutaneous	8 units subcutaneous
301-350	6 units subcutaneous	8 units subcutaneous	10 units subcutaneous
351-400	8 units subcutaneous	10 units subcutaneous	12 units subcutaneous
Greater than 400	Notify provider	Notify Provider	Notify provider

(UMC Pharmacy, 2015)

Worksheet for Students Observing Simulation on Live Feed

Instructions: Please write observations for how each action was performed during the simulation.

Action	Observation
Teamwork Focus: Interaction and Leadership • How well did the team interact with one another? • Did every team member participate and share or receive information? • Which team member took the lead? • How was it determined who would take the lead?	
Communication Focus: Clarity and Specificity • How well was communication achieved among the team? • When there was confusion, did someone offer clarity in the decisions being made? • Did someone explain the reasoning behind the decisions being made? • Were instructions or requests made with complete and specific information? • Did there appear to be misunderstanding or confusion due to communication?	
Situational Awareness Focus: Knowledge and Understanding, Sharing Information • Discuss the comfort level of the team in terms of what they knew and how well they understood how to respond to their patient. • How was information shared with others? Was it effective and timely? Did all parties receive updates as required or necessary?	

(Posa, 2019)

Debriefing Guide

Debriefing Points	Suggested Questions
Guide participants to describe their thinking as they prepared to encounter the patient.	What did you expect to discover when you went into the patient's room?
Ask broad questions to expose deeper thinking behind what participants anticipated. Follow the thoughts they are disclosing in debriefing with further questions, in a non-judgmental tone and manner.	Tell me more... What made you think you would find _____
Direct the conversation to the actions and behaviors that were evident during the scenario.	Let's talk about what happened when you first went into the room. Describe to me what you were thinking when you began your care in the scenario with... Tell me more... What was going through your mind when you...What made you think...
Guide participants to consider the patient's responses to their actions and care provided.	How did you think (specific action) went? • Oxygen application • Assessment • SBAR with provider • Nebulizer administration • Methylprednisolone administration • Insulin administration How did the patient respond to (specific action)? What did you think of that response? Looking back, is there anything you would have done differently (regarding a specific action)?

(Gaumard, 2019)

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