



SIMULATION SCENARIO #6

“HELP! I’M LOST!”

Simulation device: Oximeter

Skills Progression Line



Simulation Level: Competent

Source: Benner, P. E. (1995). *De novice à expert : excellence en soins infirmiers*. InterEditions.

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THE OXI



- Inspired by the Zaccurate 500 DL Pro Series Fingertip Pulse Oximeter.
- Allows you to show an oxygen saturation measurement (blood oxygenation measurement) and a heart rate (pulse) to simulate hypoxemia and/or hyperoxia.
- Compatible with low, medium, high-fidelity manikins or with a simulated/standardized patient.
- Designed to fit on human fingers, but also works with silicone, rubber, latex or plastic fingers.
- When a value is received, a bar graph will match the heartbeat (BPM).
- Comes with a wrist strap, a USB-C cable and a wall charger.
- Powered by a rechargeable Lithium-ion battery (24-hour autonomy).

THIS DEVICE IS



User-friendly



Remote-controlled via instant Bluetooth connection



Durable



Designed, manufactured and assembled in Canada



Environment-friendly
(1 device bought = 1 tree planted)



Controlled via Innov2Learn's free, easy-to-use app for all devices

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NURSING SKILLS

This simulation develops the nursing student’s know-how in the context of acute geriatric care.

AUTHORS

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OVERVIEW OF THE CLINICAL SITUATION

The nursing student performs their duty in the emergency department of a teaching hospital. Under their care is Mrs. Bolomey, who was admitted by ambulance for dyspnea and confusion in the afternoon, around 3 PM. The simulation starts at 4:30 PM when the nursing student starts her bedside rounds in the observation room, having read Mrs. Bolomey’s chart beforehand.

The nursing student walks into the room where Mrs. Bolomey is lying in bed and sees Mr. Bolomey. He tells her he doesn’t recognize his wife anymore and adds, “This morning she was breathlessly crying out for help and now she’s sleeping through our conversations.” He’ll continue by telling the nursing student what prompted him to call the ambulance: His wife’s cognitive state had drastically changed during the day. Mr. Bolomey displays concern.



LEARNING GOALS

COGNITIVE LEVEL:

- Assess the situation with the evidence gathered;
- Assess and identify current and potential nursing problem(s) while considering priorities;
- Prepare a monitoring and care plan that is appropriate for the situation;
- Provide a minimum of two (2) nursing directives.

EMOTIONAL LEVEL:

- Establish trust by using adapted and empathetic communication with the patient/family; adopt a reassuring and respectful posture.

PROCEDURAL LEVEL:

- Implement collaborative monitoring that is appropriate to the care situation (set up a monitoring plan).

PRE-REQUISITE KNOWLEDGE/SKILLS

- Geriatric assessment procedure and vitals (reference values)
- Knowledge of physiopathology and the clinical manifestations of delirium (acute confusion) and dementia
- Common geriatric health problems (altered response to acute disease: infection and other metabolic changes in the elderly)
- Acute confusion assessment tool
- Nursing approach: collecting vitals/interpreting data/interventions/ assessment
- Using an oximeter and interpreting data
- Communication techniques/skills (adapted approach for someone exhibiting confusion)

EDUCATIONAL MATERIAL

- Innov2Learn Oximeter Simulator
- Mobile device
- Nasal cannula or venturi mask
- Access to a cardiac monitor
- Possibility of having lung sounds during auscultation: crackle or rattle in the peripheral airways and alveoli. Audible mainly at the base
- Manikin with altered mental state (less agitated: hypoactive or very agitated: hyperactive) = acute confusion/delirium, incoherent
- Sphygmomanometer, stethoscope (parameters: BP 175/84, Pulse 103/min, sat. 90% with 2L/min O₂, respiratory rate: 30/min)
- Thermometer: rectal and oral (parameters: 37.9°C oral, 38,7°C rectal)
- Presence of the husband
- Patient chart with the following information:
 - Age: 85
 - Medical history: cognitive impairment under investigation by the patient's doctor (BMI: 35 kg/m²) and controlled hypertension
 - Reason for admission: severe dyspnea, confusion, general deterioration, decreased autonomy. Transferred to the emergency room for oxygen therapy and observation and monitoring
 - CT scan report confirming lingular consolidation compatible with pneumonia
 - Partial anamnesis: Her symptoms started a week ago according to her husband
 - Negative SARS-CoV-2 Nasopharyngeal Swab five (5) days ago
 - Lab results: CBC, CRP, blood gas, CMP, septic workup
 - Mrs. Bolomey's pharmacological profile
 - Acute confusion assessment tool
 - Bowel and urine elimination record (bowel movement: large amount, soft, incontinence observed over the last 24 hours); urination lost



4 PM VITALS (REFERENCE)

Blood Pressure	Oral Temperature	Pulse	Respiratory Rate	O2 Saturation
156/80 mmHg	37.4 °C	103/min	22/min	93% with O2 2L/min via cannula

Drug (class)	Administration Route	Administration Time
ANTIACIDE	oral	7:30 AM
Antihypertensive	oral	8:00 AM
NON-OPIOID ANALGESIC	oral/IV/IR	PRN
ANTIBIOTIC Amoxicillin/Clavulanic acid 1.2g IV x/8hr	IV	8:00 AM 4:00 PM MIDNIGHT
ANTIBIOTIC Clarithromycin 500 mg oral 2X/day	oral	6:00 AM 6:00 PM

TODAY'S BLOOD GAS TEST WITH 2 L OF O2 BEFORE THE CLINICAL EXAMINATION; ORAL TEMPERATURE OF 37.4 °C.

Blood Gas Test	Mrs. Bolomey's Results	Normal Values
PaO2	62mmHg	>80 mmHg
SaO2	90%	92 – 98%
PaCO2	70mmHg	35 – 45 mmHg
HCO3 -	32mmHg	22 – 26 mmol/L
pH	7.29	7.35 – 7.45



PHARMACOLOGICAL PROFILE

COMPLETE BLOOD COUNT (CBC)

CBC	Mrs. Bolomey's Results	Normal Values for Women
HEMOGLOBIN	115	120-160 gr/L (slightly lower values for elders)
HEMATOCRIT	35	37-48% (slightly lower values for elders)
LEUCOCYTES	12,000	Adult: 4200-10'000/mm ³
LYMPHOCYTES	20%	20-40%, absolute count 1000-4000 cells/mm ³
MONOCYTES	1%	2-8%, absolute count < 850 cells/mm ³
PLATELETS	362 000	150,000-400,000/mm ³
CRP	250	< 5mg/L

COMPREHENSIVE METABOLIC PANEL (CMP)

CMP	Mrs. Bolomey's Results	Normal Values for Women
CHLORIDE	96	96-106 mmol/L
URINANALYSIS	<i>Chemstrip/Urine Test Strip</i>	
CALCIUM	2	2.10-2.60 mmol/L
Glucose	5.5	3.5-6 mmol/L
MAGNESIUM	0.65	0.8-1.05 mmol/L
PHOSPHORUS	0.70	0.70-1.40 mmol/L
POTASSIUM	3.5	3.5-5.0 mEq/L
SODIUM	133	135-145 mEq/L
UREA, BUN	10	Blood: 2.5-8.0 mmol/L
CREATININE	115	Blood: 50-110 µmol/L
Vitamin B12	700	150-850 pmol/L

SEPTIC WORKUP

Septic Workup	Mrs. Bolomey's Results	Normal Values
Urine Culture	<i>Awaiting</i>	Negative: < 10'000/ml Positive: >100'000/ml
Hemoculture	<i>Awaiting</i>	

SIMULATION TIMETABLE

EXPECTED INTERVENTIONS

- Use adapted, transparent, reassuring, confident communication with the patient/family about the changes observed in Mrs. Bolomey
- Provide support and presence to reorient and reassure the patient with the monitoring measures put in place
- Establish a partnership with the patient/husband about future care

Briefing (suggested duration: 30 minutes)

1. Introduce the clinical situation, the skills to be developed and the learning goals.
2. Briefly discuss potential emotional reactions in this type of clinical situation.
3. Guide students towards situational analysis and clinical risk assessment.
4. Talk with students to enhance knowledge mobilization.
5. Provide guidance and support to students about prioritizing proper monitoring and nursing care for the situation.
6. Expected plan: prioritizing vital signs monitoring and data interpretation; proper positioning of the patient in the bed; assessment of the respiratory system: pulmonary auscultation; oxygen therapy adjustments; assessment of Mrs. Bolomey's mental status.

Caregiving Situation (suggested duration: 20 minutes)

Expected Assessments

- Targeted clinical assessment including:
 - PQRSTU*** of current (new) symptoms
 - Measure vitals: BP/Pulse/% saturation, rectal temperature, respiratory rate
 - Collect data about the patient's mental state
 - Analyse and interpret data (formulate in writing at least 2 nursing hypotheses)

Debriefing (suggested duration: 30 minutes)

- Roundtable discussion of emotions (as needed).
- Reviewing the learning goals and elements to be explored:
 - Cognitive Level: Thorough analysis of the patient's assessment, discussion of evidence-based hypotheses.
 - Emotional Level: Establish trust and a partnership with the patient/family that is relevant for an older patient. (Temporariness of the confusion to reassure the husband).
 - Procedural Level: Care plan after data analysis, reviewing prioritization order. Clinical monitoring plan: clear directives: relevant frequency. Information for the husband: when? what?
 - Adaptation needed as per assessment data, safety aspect, adjusting oxygen therapy and patient posture.
 - Significant and durable competencies learned to be implemented in the professional practice.

CLINICAL TOOL: ASSESSING PAIN WITH PQRSTU

(TO USE AND ADAPT TO THE SYMPTOMS DISPLAYED DURING THIS SIMULATION)

- P: What caused your pain? What relieves it? What makes it worse? (movements, drugs, applying hot/cold therapy, etc.)
- Q: Describe your pain. What do you feel? (Throbbing, burning, numbing, electric shocks, deep, superficial)
- R: Where do you feel pain? Point to the painful area(s) with your finger.
- S: Do you feel discomfort elsewhere?
- T: When did the pain start? Is it intermittent or constant? If it is intermittent, when does it occur?
- U: What do you think is causing the pain? What does it mean to you?

SOURCES

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