

SECTION I: SCENARIO OVERVIEW

Scenario Title:	Seizures 12 year old in school setting
Authors:	A. Ballardo, RN; T. Lumas, RN; K. Price, RN
Date – original scenario	
Validation:	M., MA, RN, CHSE; L. Jones-Bell, MSN, RN, PHN: C. Halford, DNP, RN, CNL, CNS
Revision Dates:	10/18, reviewed
Pilot Testing:	11/13
QSEN revision:	Included in original scenario

Estimated Scenario Time: 15-20 minutes Debriefing Time: 20-30 minutes

Target Group: Student Nurses in Pediatric Rotation, School/Pediatric Nurses

Core Case: First Aid Seizure Care, Safety & Privacy, Seizure Emergency Protocol, Diastat Medication Administration

QSEN Competencies:

- Patient-Centered Care
- Teamwork & Collaboration
- Evidence Based Practice
- Safety
- Quality Improvement
- Informatics

Brief Summary of Case:

José Lopez is a 12 year old male 7th grader who was diagnosed with Epilepsy NOS in August 2012 after experiencing 2 unprovoked seizures at home. José takes Valproic Acid (Depakote) twice a day to control seizures. Seizures have been well controlled, and José experiences about 1 to 2 seizures per year. During a math lesson, José exhibits warning signs of an impending seizure. Soon after, he begins to seize while sitting in his desk. Learners are expected to provide first aid care during and after a seizure, be able to identify when a seizure becomes an emergency situation, and be able to administer emergency anti-seizure rescue medication (Diastat) when appropriate. *This scenario is appropriate for school/pediatric nurses and nursing students in their pediatric rotation. It can be made more complicated by making the patient more unstable.*

EVIDENCE BASE / REFERENCES (APA Format)

Austin, J. K., Kakacek, J. R., & Carr, D. (2010). Impact of training program on school nurses' confidence levels in managing and supporting students with epilepsy and seizures. <i>The Journal of School Nursing, 26</i> (6), 420-429.
First Aid. (n.d.). <i>Epilepsy Foundation</i> . Retrieved November 3, 2013, from http://www.epilepsyfoundation.org/aboutepilepsy/firstaid/index.cfm
Generalized Tonic Clonic Seizures. (n.d.). <i>Epilepsy Foundation</i> . Retrieved November 3, 2013, from http://www.epilepsyfoundation.org/aboutepilepsy/firstaid/generalized-tonic-clonic-seizures.cfm
O'Dell, C., & O'Hara, K. (2007). School nurses' experience with administration of rectal diazepam gel for seizures. <i>The Journal of School Nursing, 23</i> (3), 166.
O'Dell, C., O'Hara, K., Kiel, S., & McCullough, K. (2007). Emergency management of seizures in the school setting. <i>The Journal of School Nursing, 23</i> (3), 158.

SECTION II: CURRICULUM INTEGRATION

A. SCENARIO LEARNING OBJECTIVES
Learning Outcomes
1. Identify a seizure and its triggers/warning signs, when a seizure becomes an emergency, and know appropriate response
2. Provide appropriate first aid for a patient during and after a seizure
3. Provide patient care that ensures and maintains privacy and safety
4. Maintain Standard Precautions during scenario
Specific Learning Objectives
1. Provide first aid care to patient during and after seizure
2. Gather relevant patient and contextual data
3. Recognize acute changes in patient’s condition that requires immediate attention
4. Perform timely nursing interventions that addresses main problem(s)
5. Evaluate effectiveness of nursing interventions
6. Effectively communicate patient’s current status to EMS and parent/guardian
Critical Learner Actions
1. Observe and track time of seizure activity
2. Ensure safety (protect head), lower to ground (if possible), and clear area
3. Monitor breathing, ensure airway is clear/open (loosen restrictive clothing), and turn patient to their side (rescue position)
4. Recognize when a seizure becomes an emergency (generally: convulsions lasting > 5 minutes, repeated seizures without regaining consciousness, breathing difficulties, or 1 st time seizure)
5. Prepare to administer anti-seizure rescue medication (Diastat): ensure patient’s privacy and check medication using “6 Rights of Medication Administration”
6. Administer emergency anti-seizure rescue medication (Diastat) according to MD orders and manufacturer’s instructions
7. Call 911 and call parent/guardian – report that emergency anti-seizure rescue medication (Diastat) was given
8. Stay with patient and observe for any adverse events & side effects
9. Communicate patient’s current status/vital signs to EMS and parent/guardian
10. Demonstrates appropriate Standard Precautions throughout scenario

B. PRE-SCENARIO LEARNER ACTIVITIES	
Prerequisite Competencies	
Required prior to participating in the scenario	
Knowledge	Skills/Attitudes
<input type="checkbox"/> Types of seizures: signs & symptoms	<input type="checkbox"/> Nursing interventions/first aid care for seizures
<input type="checkbox"/> First aid for seizures	<input type="checkbox"/> Physical assessment
<input type="checkbox"/> Diastat medication administration & contraindications	<input type="checkbox"/> Rectal medication administration
<input type="checkbox"/> Seizure action plan & Seizure emergency protocol	<input type="checkbox"/> Ensure and maintain patient’s safety and privacy
<input type="checkbox"/> Aspects of patient privacy and safety	<input type="checkbox"/> Communication using SBAR

SECTION III: SCENARIO SCRIPT

A. Case summary

José Lopez is a 12 year-old male 7th grader who was diagnosed with Epilepsy NOS in August 2012 after experiencing 2 unprovoked seizures at home. José takes Valproic Acid (Depakote) twice a day to control seizures. Seizures have been well controlled; however, José still experiences about 1 to 2 seizures per year. During a math lesson, José exhibits warning signs of an impending seizure. Soon after, he begins to seize while sitting in his desk.

Learners are expected to perform the following specific learner actions: ensure and maintain patient safety, provide first aid care during and after a seizure, provide and maintain patient privacy, position patient in rescue position, recognize when a seizure becomes an emergency, administer emergency anti-seizure rescue medication, and communicate patient status to EMS and parent/guardian.

Learners will demonstrate incorporation of QSEN competencies throughout the scenario by recognizing changes in patient status and conducting appropriate follow up; prioritizing actions related to patient needs (safety and privacy) and delegate actions if appropriate; demonstrating safe practices, evidence based practice/informatics, related to medication administration and preventing injury to patient; communicating observations or concerns related to potential hazards for patient; and working as part of a team.

B. Key contextual details

During a math lesson, the patient exhibits warning signs of an impending seizure. The teacher instructs a student to inform the school nurse about the situation. As the school nurse enters the classroom, the patient begins to seize in their desk. The point is for the learners to ensure the patient’s privacy and safety, provide first aid care during and after a seizure, recognize when a seizure becomes an emergency, administer emergency anti-seizure rescue medication, and communicate patient status to EMS and parent/guardian.

C. Scenario Cast

Patient/Client	<input type="checkbox"/> High fidelity simulator	
	<input type="checkbox"/> Mid-level simulator	
	<input type="checkbox"/> Task trainer	
	<input type="checkbox"/> Hybrid (Blended simulator)	
	<input type="checkbox"/> Standardized patient	
Role	Brief Descriptor (Optional)	Standardized Participant Or Learner (L)
School Nurse		Learner
Teacher		Learner/SP
Students (3 or more)		SP
EMS (2)		SP

D. Patient/Client Profile

Last name:	Lopez		First name:	José
Gender: Male	Age: 12	Ht: 5'0"	Wt: 43.8 kg	Code status: Full
Spiritual Practice: Catholic		Ethnicity: Hispanic		Primary Language Spoken: English

1. History of present illness

José was his usual self until July 18, 2012 when he experienced his first seizure at home. During this episode, José convulsed for 5 minutes, and mom called 911. Mom stated that before the seizure, she noticed that José's eyes became glossy and the muscles in his face tightened up. Soon after, José began to convulse: arms and legs became stiff followed by rhythmic jerking. José was brought to the hospital and stayed overnight for observation. José's hospital stay was uneventful, and was sent home the next day. On August 23, 2012, José experienced his second seizure at home. Mom stated that seizure was about 10 minutes long. José was eating breakfast but then his eyes became glossy and teeth clenched together. Soon after he began to convulse: arms and legs stiffened followed by rhythmic jerking, and his breathing was shallow. Mom called 911 and José was brought to the hospital. An extensive neurological exam and tests were performed to help determine the cause of José's seizures. Results were unremarkable, and José was diagnosed with Epilepsy NOS since he had experienced 2 unprovoked seizures. José was placed on Valproic Acid (Depakote) to help control his seizures. Since then, seizures have been well controlled. However, José still experiences about 1-2 seizures per year.

Primary Medical Diagnosis: Epilepsy NOS

2. Review of Systems

CNS	Unconscious, unresponsive; Postictal phase (after seizure): lethargy, altered LOC
Cardiovascular	Increased HR: about 124 bpm
Pulmonary	Shallow breathing
Renal/Hepatic	-
Gastrointestinal	(Possible) bowel/bladder incontinence
Endocrine	-
Heme/Coag	-
Musculoskeletal	Tonic phase: continuous muscle contractions (bilateral stiffening of arms and legs); Clonic phase: rigidity and relaxation alternate in rapid succession
Integument	-
Developmental Hx	Normal male 12 year old
Psychiatric Hx	No psych history
Social Hx	Lives at home with mother, father, and younger brother
Alternative/Complementary Medicine Hx	None

Medication allergies:	NKDA	Reaction:	
Food/other allergies:	NKA	Reaction:	

3. Current medications	Drug	Dose	Route	Frequency
	Valproic Acid (Depakote)	17.5 mL (875 mg)	PO	Q12hrs

4. Laboratory, Diagnostic Study Results					
Na:	K:	Cl:	HCO ₃ :	BUN:	Cr:
Ca:	Mg:	Phos:	Glucose:	HgA1c:	
Hgb:	Hct:	Plt:	WBC:	ABO Blood Type:	
PT:	PTT:	INR:	Troponin:	BNP:	
Ammonia:	Amylase:	Lipase:	Albumin:	Lactate:	
ABG-pH:	paO ₂ :	paCO ₂ :	HCO ₃ /BE:	SaO ₂ :	
VDRL:	GBS:	Herpes:			
CXR:		ECG:			
CT:		MRI:			
Other:					

E. Baseline Simulator/Standardized Patient State (This may vary from the baseline data provided to learners)					
1. Initial physical appearance					
Gender:	Male	Attire:	Regular clothes		
Alterations in appearance (moulage): 12 year old male, sitting in desk; Eyes are glossy, face muscles are tightened, teeth clenched					
	ID band present, Accurate information		ID band present, Inaccurate information	X	ID band absent or not applicable
	Allergy band present, Accurate information		Allergy band present, inaccurate information	X	Allergy band absent or not applicable

2. Initial Vital Signs Monitor display in simulation action room:					
X	No monitor display		Monitor on, but no data displayed		Monitor on, standard display

BP:	HR:	RR:	T:	SpO ₂ :
CVP:	PAS:	PAD:	PCWP:	CO:
AIRWAY:	ETCO ₂ :	FHR:		
Lungs: Sounds/mechanics	Left:		Right:	
Heart:	Sounds:			
	ECG rhythm:			
	Other:			
Bowel sounds:				Other:

3. Initial Intravenous line set up					
Saline Lock #1	Site:				IV patent (Y/N)
IV #1	Site:		Fluid type:	Initial rate:	IV patent (Y/N)
Main					
Piggyback					
IV #2	Site:		Fluid type:	Initial rate:	IV patent (Y/N)
Main					
Piggyback					
4. Initial Non-invasive monitors set up					
NIBP			ECG First lead:		ECG Second lead:
Pulse oximeter			Temp monitor/type		Other
5. Initial Hemodynamic monitors set up					
A-line Site:			Catheter/tubing Patency (Y/N)	CVP Site:	PAC Site:
6. Other monitors/devices					
Foley catheter		Amount:		Appearance of urine:	
Epidural catheter			Infusion pump:	Pump settings:	
Fetal Heart rate monitor/tocometer				Internal	External
Environment, Equipment, Essential props					
Recommend standardized set ups for each commonly stimulated environment					
1. Scenario setting: (example: patient room, home, ED, lobby)					
Classroom – School Setting					

2. Equipment, supplies, monitors					
(in simulation action room or available in adjacent core storage rooms)					
Bedpan/Urinal		Foley catheter kit		Straight cath. Kit	Incentive spirometer
IV Infusion pump		Feeding pump		Pressure bad	Wall suction
Nasogastric tube		ETT suction catheters		Oral suction catheters	Chest tube insertion kit
Defibrillator		Code Cart		12-lead ECG	Chest tube equip
PCA Infusion pump		Epidural infusion pump		Central line Insertion Kit	Dressing equipment
IV fluid Type:		IV fluid additives:			Blood product ABO Type: # of units:

3. Respiratory therapy equipment/devices					
Nasal cannula		Face tent		Simple Face Mask	Non re-breather mask
BVM/Ambu bag		Nebulizer tx kit	Flowmeters (extra supply)		

4. Documentation and Order Forms					
Health Care Provider orders		Med Admin Record		H & P	Lab Results
Progress Notes		Graphic record		Anesthesia/PACU record	ED Record
Medication reconciliation		Transfer orders		Standing (protocol) orders	ICU flow sheet
Nurses' Notes		Dx test reports		Code Record	Prenatal record
Actual medical record binder, constructed per institutional guidelines			X	Other Describe: Healthcare Binder & Seizure Action Plan	

5. Medications (to be available in sim action room)								
#	Medication	Dosage	Route		#	Medication	Dosage	Route
1	Diastat AcuDial	10 mg	Rectal					

CASE FLOW/ TRIGGERS/ SCENARIO DEVELOPMENT STATES			
<p>Initiation of Scenario: José is sitting in class during a Math lesson. The student next to him notices that José is acting "different". The teacher walks over and notices that José's eyes are glossy, face muscles are tightened, and teeth are locked up. The teacher informs one of the students to get the school nurse and tells the rest of the student to leave the classroom. As the school nurse enters to the room, José begins to seize in his desk.</p>			
STATE/ PATIENT STATUS	STATE/ PATIENT STATUS		
<p>1. Baseline José is sitting in his desk. His eyes become glossy, face muscles tighten, and teeth are locked up.</p>	<p>Operator Patient is sitting in desk with eyes glossy, face muscles tightened, and teeth clenched.</p> <p>Triggers: Learner identifies seizure warning signs, and retrieves Healthcare Binder and Diastat.</p>	<p>Learner Actions Notify school nurse</p> <p>Identify seizure warning signs and triggers</p> <p>Clear room of students & ensure patient's privacy</p> <p>Ensure patient's safety</p> <p>Retrieve Healthcare Binder (Seizure Action Plan, MD orders)</p> <p>Retrieve Diastat medication</p>	<p>Debriefing Points Examples of possible seizure warning signs and triggers</p> <p>Seizure Action Plan</p> <p>Importance of providing and maintaining privacy and safety for patient during a seizure</p> <p>School/School District Protocol for seizure</p>
STATE/ PATIENT STATUS	STATE/ PATIENT STATUS		
<p>2. José loses consciousness. He begins to seize in his desk</p> <p>He begins to convulse – bilateral arm and leg stiffening. "Tonic" Phase (about 5-10 seconds)</p> <p>José is still convulsing – bilateral rhythmic jerking of arms and legs. "Clonic" Phase (>5 minutes)</p> <p>Breathing is shallow, but there is no evident change in skin color.</p>	<p>Operator Patient loses consciousness and begins to seize. Patient is experiencing generalized tonic-clonic seizure lasting longer than 5 minutes.</p> <p>Triggers: Learner recognizes that seizure has lasted longer than 5 minutes, and is now an emergency. Learner prepares to administer emergency anti-seizure medication (Diastat).</p>	<p>Learner Actions Ease patient out of desk and carefully lower to the floor</p> <p>Clear area</p> <p>Protect from injury/potentially harmful objects, loosen restrictive clothing – maintain safety</p> <p>Ensure airway is clear/open</p> <p>Cushion and protect head</p> <p>Observe and time events</p> <p>Turn patient to rescue position</p> <p>Follow patient's Seizure Action Plan</p> <p>After 5 minutes of seizing, recognizes that seizure is now an emergency, and prepares to administer emergency anti-seizure medication (Diastat)</p>	<p>Debriefing Points: Appropriate first aid care during a seizure</p> <p>Signs and symptoms of seizure – Generalized Tonic-Clonic Seizure</p> <p>Recognizing when a seizure becomes an emergency ("Seizure Emergency" is defined in patient's Seizure Action Plan, parameters set by Doctor)</p> <p>Parameters as to when to administer emergency anti-seizure medication (Diastat) per patient's Seizure Action Plan</p>

CSA REV template (10/18)

ALL DATA IN THIS SCENARIO IS FICTITIOUS

STATE/ PATIENT STATUS	DESIRED LEARNER ACTIONS & TRIGGERS TO MOVE TO NEXT STATE		
<p>3. José is still convulsing. He has now been seizing for more than 5 minutes, with no signs of stopping.</p>	<p>Operator Patient is still seizing – bilateral rhythmic jerking of arms and legs</p> <p>Triggers: Learner administers emergency anti-seizure medication (Diastat), calls 911, and calls parent/guardian</p>	<p>Learner Actions Prepare to administer emergency anti-seizure medication (Diastat)</p> <p>Check medication using “6 Rights of Medication Administration”</p> <p>Administer Diastat according to manufacturer’s instructions</p> <p>Call 911 & Call parent – report that Diastat was given</p>	<p>Debriefing Points: Recognizing when a seizure becomes an emergency</p> <p>Parameters as to when to administer emergency anti-seizure medication (Diastat) per patient’s Seizure Action Plan</p> <p>Importance of maintaining privacy during administration of medication</p> <p>Following instructions on Seizure Action Plan: what to do for a “seizure emergency”</p>
<p>STATE/ PATIENT STATUS</p>	<p>DESIRED LEARNER ACTIONS & TRIGGERS TO MOVE TO NEXT STATE</p>		
<p>4. José’s seizing stops 5 minutes after administering emergency anti-seizure medication (Diastat) and slowly begins to regain consciousness.</p>	<p>Operator Patient stops seizing 5 minutes after administering emergency anti-seizure medication (Diastat)</p> <p>Triggers:</p>	<p>Learner Actions Stay with patient and observe/assess for any adverse events & side effects</p> <p>Assess patient for possible injuries</p> <p>Provide SBAR report to health care team (EMS)</p>	<p>Debriefing Points: SBAR report that includes information about patient’s seizure (type, length), and medication administration & response</p>
<p>Scenario End Point: EMS arrives to school. Learner provides SBAR report, and patient is brought to the hospital</p>			
<p>Suggestions to <u>decrease</u> complexity: Seizure does not last longer than 5 minutes and does not exhibit any other signs/symptoms of emergency seizure (i.e. breathing difficulties, repeated seizures without regaining consciousness) that requires emergency protocol</p> <p>Suggestions to <u>increase</u> complexity: Seizure does not stop (Status Epilepticus). Patient stops breathing after seizure. Seizure causes patient to become incontinent of bowel and bladder. Patient is injured during seizure or Diastat administration. Family is hysterical.</p>			

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APPENDIX A: HEALTH CARE PROVIDER ORDERS

Patient Name: Lopez, José DOB: 04/13/2001 Age: 12 MR#: 987654321	Diagnosis: Epilepsy NOS
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No Known Allergies
Allergies & Sensitivities

Date	Time	HEALTH CARE PROVIDER ORDERS AND SIGNATURE
8/19/13		Administer 10mg of Diastat AcuDial Rectally for seizures lasting longer than 5 minutes

Signature

[Type here]

APPENDIX B: Digital images of manikin and/or scenario milieu	
Insert digital photo here	Insert digital photo here
Insert digital photo here	Insert digital photo here

APPENDIX C: DEBRIEFING GUIDE

General Debriefing Plan			
<input type="checkbox"/> Individual	<input type="checkbox"/> Group	<input type="checkbox"/> With Video	<input type="checkbox"/> Without Video
Debriefing Materials			
<input type="checkbox"/> Debriefing Guide	<input type="checkbox"/> Objectives	<input type="checkbox"/> Debriefing Points	<input type="checkbox"/> QSEN
QSEN Competencies to consider for debriefing scenarios			
<input type="checkbox"/> Patient Centered Care	<input type="checkbox"/> Teamwork/Collaboration	<input type="checkbox"/> Evidence-based Practice	
<input type="checkbox"/> Safety	<input type="checkbox"/> Quality Improvement	<input type="checkbox"/> Informatics	
Sample Questions for Debriefing			
<ol style="list-style-type: none"> 1. How did the experience of caring for this patient feel for you and the team? 2. Did you have the knowledge and skills to meet the learning objectives of the scenario? 3. What GAPS did you identify in your own knowledge base and/or preparation for the simulation experience? 4. What RELEVANT information was missing from the scenario that impacted your performance? How did you attempt to fill in the GAP? 5. How would you handle the scenario differently if you could? 6. In what ways did you check feel the need to check ACCURACY of the data you were given? 7. In what ways did you perform well? 8. What communication strategies did you use to validate ACCURACY of your information or decisions with your team members? 9. What three factors were most SIGNIFICANT that you will transfer to the clinical setting? 10. At what points in the scenario were your nursing actions specifically directed toward PREVENTION of a negative outcome? 11. Discuss actual experiences with diverse patient populations. 12. Discuss roles and responsibilities during a crisis. 13. Discuss how current nursing practice continues to evolve in light of new evidence. 14. Consider potential safety risks and how to avoid them. 15. Discuss the nurses' role in design, implementation, and evaluation of information technologies to support patient care. 			
Notes for future sessions:			