

SECTION I: SCENARIO OVERVIEW

Scenario Title:	Respiratory	distress in 5-year-old child in school setting – AACN Essentials				
Original Scenario De	eveloper	C. Sense MSN RN CNS; D. Brady DNP RN CNS; D. Baker PhD, APRN;				
Date - original scenario		Nov 7, 2013				
Validation:		M. Miller, MA, RN, CHSE				
		C. Sense MSN RN CNS; D. Baker PhD, APRN; M. Cosby MPA, MSN, RN				
Revision Dates:		11/13; 01/14; 02/14; 07/18 reviewed				
		08/24 L Catron DNP, M.A.ED, BSN, RN, CHSE				
Pilot testing:		03/14				
Estimated Scenario	<u>Time</u> : 12-15 r	ninutes <u>Debriefing time</u> : 15 minutes				
shortness of breath Brief Summary of Ca information is noted Plan/Action Plan for has been healthy ar classroom with carp After 2 hours in the adult aide who note called the school nu must recognize sign	and is taken to ase: The client d on the emerger asthma, statin od has had not bet that was cle classroom he ed that he was urse. The school	of asthma; at school exposed to carpet cleaning material, develops o the health office. It is a 5 year-old male student who has a 3 year history of asthma. This gency card in the school office. He also has an Emergency Care ng rescue inhaler ProAir (Albuterol) to be used in case of emergency. He asthma attacks at school. The student was at school today and in a eaned by the janitor the night before and had slight "chemical" smell. told the teacher he "could not breathe". He was sent to the office with an coughing and wheezing. The office staff could not locate his inhaler and ol nurse was in another classroom when her cell phone rang. Learners ama, develop an immediate plan to assess and treat, and determine if a				
911 is required.						
	E\	/IDENCE BASE / REFERENCES (APA Format)				
e ,		nd Quality. (2019). Tool: SBAR. TeamSTEPPS program.				
		mstepps-program/curriculum/communication/tools/sbar.html				
https://www). My asthma action plan for home and school. media/aa8ce6f5-667e-4726-b4ab-8ac8d5d448e4/FY22-ALA-Asthma-Action R-codes.pdf				
https://www	v.lung.org/lung	, June). About AFSI. The Story behind the asthma-friendly schools initiative. g-health-diseases/lung-disease-lookup/asthma/health-professionals- -schools-initiative/about-afsi				
https://www	w.ncbi.nlm.nih	medication in Children. <i>StatPearls[Internet].</i> gov/books/NBK441823/				
Chiocca, E.M. (2019). Advanced pe	ediatric assessment. ISBN: 9780826150110				
		use Epinephrine (or an EpiPen) to treat and asthma attack? Healthline. om/health/asthma/epinephrine-for-asthma#epinephrine-for-asthma				

F.A. Davis. (2024). Davis's Drug Guide (19th ed.) [Mobile app] F.A. Davis & Unbound Medicine.



- Garzon, D. L., Dinks, M., Driessnack, M., Duderstadt, K. G., & Gaylord N. M. (2024). Burn' Pediatric Primary Care (8th ed.). Elsevier. ISBN: 978-0323882316
- Pegoraro, F. Masini, M., Giovannini, M., Barni, S., Mori, F., du Toit, G., Bartha, I, & Lombardi, E. (2022). Asthma action plans: An international review focused on the pediatric population. Frontiers in Pediatrics, 10, 10,87935. https://doi.org/10.3389/fped.2022.874935

Poowuttikul, Pavadee & Seth, Divya. (2020). New concepts and technological resources in patient education and asthma self-management. Clinical Reviews in Allergy & Immunology, 5, 19-37. https://doi.org/10.1007/s12016-020-08782-w

Russell, A. F., Nanada, A., & Bingemann, T. A. (2022, January). The vital role of the school nurse in managing asthma. *National Association of School Nurses, 37*(1). https://doi.org/10.1177/1942602X211037260

Shenoi, R. P. (2020). Drugs used to treat pediatric emergencies. *Pediatrics* 145(1). https://doi.org/10.1542/peds.2019-3450

Walker, A. & Hanna, A. (2020, March). Kids really are just small adults: Utilizing the pediatric triangle with the classic ABCD approach to assess pediatric patients. *Cureus*, *12*(3), e7424. https://doi.org/10.7759/cureus.7424

SECTION II: CURRICULUM INTEGRATION A. SCENARIO LEARNING OBJECTIVES

Learning Outcomes

- 1. Utilizes critical analysis/clinical decision making to interpret data & implement appropriate care.
- 2. Communicates in a compassionate and client centered manner.
- 3. Synthesizes case study data to determine need for additional medications and medical treatment
- 4. Utilizes effective communication protocols with emergency response personnel

Specific Learning Objectives

- 1. Implements pediatric assessment triangle (PAT) and respiratory assessment
- 2. Recognizes symptoms of acute asthma and progressing respiratory distress
- 3. Prioritize administration of emergency medication
- 4. Administer rescue inhaler medication and continuously monitors patient
- 5. Initiates the appropriate communication with emergency personnel, parents, and administrator
- 6. Manages emergent situation with school staff

Critical Learner Actions

- 1. Greets child in calm, open manner, initiates verbal assessment.
- 2. Completes PAT and focused respiratory assessment
- 3. Reviews Emergency Response Card and Emergency Care/Action Care Plan
- 4. Administers rescue inhaler
- 5. Determines respiratory status and need for further care; arranges for school personnel to call 911
- 6. Calls or delegates call to parent and administrator to notify of the situation and determine where the child will be taken
- 7. Reassesses and recognizes declining respiratory status
- 8. Administers Epi-Pen
- 9. Deliver SBAR verbal report and written copy of Emergency Care/Action Plan to emergency services

10. Manages emergent situation in a calm, professional manner

11. Initiate required documentation of student event and subsequent care.

	•			
AACN Essential Learner Activities Based on Learning Objectives & Actions				
Domain	Sub competencies			
1 Knowledge for Nursing Practice	1.2a; 1.2e; 1.3a; 1.3b; 1.3c			
2 Person-Centered Care	2.1; 2.2; 2.3; 2.4; 2.5c-f; 2.6c; 2.6d; 2.7a; 2.7b; 2.9c-e;			
4 Scholarship for the Nursing Discipline	4.2c			
5 Quality and Safety	5.1c; 5.2c; 5.2f			
6 Interprofessional Partnerships	6.1b; 6.1c; 6.1e; 6.2b; 6.2c; 6.3b; 6.3c; 6.4c;6.4d			
State or Regional Core Tenet Learner Activities	5			
QSEN Competencies				
Patient Centered Care	Teamwork and Collaboration			
Patient Safety	□ Informatics			
Evidence Based Practice Ouality Improvement				



B. PRE-SCENARIO LEARNER ACTIVITIES Prerequisite Competencies Knowledge Skills/ Attitudes Physical assessment skills Pediatric Assessment Triangle Signs/Symptoms of acute asthma and • Continued use of systemic assessment and use respiratory distress of O2 Sat if available MDI Inhaler for children □ Use of rescue inhaler Epi-Pen for rescue □ Use of Epi-Pen **D** Professional leadership and management of □ SBAR communication (Situation-Background-Assessment-Recommendation) emergent situation



SECTION III: SCENARIO SCRIPT

Case summary

The client is a 5-year-old male student who has a 3-year history of asthma. This information is noted on the emergency card in the school office. He also has an Emergency/Action Care Plan for asthma, stating rescue inhaler ProAir (Albuterol) to be used in case of emergency. He has been healthy and has had not asthma attacks at school. The student was at school today and in a classroom with carpet that was cleaned by the janitor the night before and had slight "chemical" smell. After 2 hours in the classroom he told the teacher he "could not breathe". He was sent to the office with an adult aide who noted that he was coughing and wheezing. The office staff could not locate his inhaler and called the school nurse. The school nurse was in another classroom when her cell phone rang. Learners must recognize signs of acute asthma, develop an immediate plan to assess and treat, and determine if a 911 is required. Inhaler was not used immediately and the asthma progressed quickly. Inhaler was in ineffective. School nurse calls the parent.

B. Key contextual details

School Nurse Office setting with access to student files and medications

Α.

• Student with known history of asthma, Emergency Action Care Plan and Medications

	C. Scenario Cast			
Patient/ Client	X High fidelity simulator Sim Jr,			
	Mid-level simulator			
	Task trainer			
	Hybrid (Blended simulator)			
	X Standardized patient (age range (5-8)			
Role	Brief Descriptor	Standardized Participant or Learner		
RN 1	School Nurse	Learner		
RN 2	School Nurse Learner			
School Secretary	Voice on Phone	Computer Programmer		
EMT	Voice on Phone	Computer Programmer		



D. Patient/Client Profile							
Last name:	Tagene		First name: William				
Gender: Male	Age: 5 yr Ht: 40 "		Wt: 40 lbs.	Code Status: Full			
Spiritual Practice: Ethnicit none		Ethnicity: N	٨iddle Eastern	Primary Language spoken: English			
1. History of present illness							
3 year history of	asthma with 2-3	acute asthm	na attacks per year; last	one at age 4, has not required			

hospitalization.

Primary Medical Diagnosis

Late preterm infant

2. Review of System	ns			
CNS	Alert appropriate 5 year old			
Cardiovascular	None no murmur			
Pulmonary	States he "cannot breath", audible wheeze with cough			
Renal/Hepatic	NA			
HEENT	No cold symptoms; normal			
Gastrointestinal	normal			
Endocrine	NA			
Heme/Coag	NA			
Musculoskeletal	Use of auxiliary muscles			
Integument	Pale			
Developmental Hx	WNL			
Psychiatric Hx				
Social Hx	Cared for at home by mom and dad; has 1 older brother age 7.			
Alternative/ Comple	ementary Medicine Hx none			

Medication allergies:	None	Reaction:	
Food/other allergies:	Dust, pollens & environmental	Reaction:	
	allergies		

S	NONE Drug	Dose	Route	Frequency
medications	ProAir (Albuterol)	2 inhalations	Inhal	Q 4-6 hrs.
cati		Asthma Exacerbation: 4-6 puffs		Q 20 min for 3 doses
edi				
ent				
Current				
-				
'n				

HealthImpact		nia Simulation All n of Health Impact	liance



4. Laboratory, Diagnostic Study Results NON

The Laboratory,	Blaghostic Study	Results Non				
Na:	К:	CI:	HCC	03:	BUN:	Cr:
Ca:	Mg:	Phos:	Glu	cose:	HgA1C:	
Hgb:	Hct:	Plt:	WB	C:	ABO Bloc	od Type:
PT	PTT	INR	Tro	ponin:	BNP:	
Ammonia:	Amylase:	Lipase:	Alb	umin:	Lactate:	
ABG-pH:	paO2:	paCO2:	HCC	03/BE:	SaO2:	
VDRL:	GBS:	Herpes:	·	HIV:		
CXR:	· · ·	ECG:				
CT:		MRI:				
Other:						

E. Baseline Simulator/Standardized Patient State				
(IN	is may vary from the baseline data provided to learners)			
1. Initial physical appear	1. Initial physical appearance			
Gender: Male	Attire: jeans and tee shirt, sneakers			

2. I	nitial Vital Signs Monito	or di	splay in simulation action room:		
х	No monitor display		Monitor on, but no data displayed	Monitor on, standard display	

BP:	HR: 140	RR: 50	T: 98.4 F	SpO ² :
CVP:	PAS:	PAD:	PCWP:	CO:
AIRWAY:	ETC0 ² :	FHR:		
Lungs: Sounds/mechanics		Stridor	Right: Wheez	es→stridor
Heart:	Sounds:	normal	·	
	ECG rhythm:	Sinus Tach		
	Other:			

3.	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					
	IV #2	Site:	Fluid type:	Initial rate:		IV patent (Y/N)
	Main					



4. Initial Non-invasive monitors set up								
Х	NIBP		ECG First lead:			EC	ECG Second lead:	
Х	Pulse oximeter		Temp monitor/type	9		Ot	ther:	
5.	Initial Hemodynamic	mon	itors set up					
	A-line Site:		Catheter/tubing Pa	tency (Y/N)		CVP Site:	PAC Site:
6.	Other monitors/devic	es						
	Foley catheter	Am	ount:	Appea	arance of urine:			
	Epidural catheter		Infusion pump:	Pump	setti	ttings:		
	•	•	•					
	Recommenc	l star	Environment, Equip Indardized set ups for					nvironment
1.	Scenario setting: (exa	ampl	e: patient room, ho	me, ED	, lob	by)		
School office setting; gurney and 2 chairs, small table. Thermometer, BP cuff, School nurse supply cabinet. School nurse supply cabinet where medications are stored (label various medications with various student's names including a "stock epi-pen" and ProAir Inhaler with MDI labeled with William Tagene name.								

2.	Equipment, su	pplies, 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 bag	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 Δ equipment		
	IV fluid Type:	IV fluid additives:	Blood product ABO Ty	pe:# of units:		

3. Respiratory therapy equipment/devices

Nasal cannula	Face tent	Simple Face Mask	Non re-breather mask
BVM/Ambu bag	Nebulizer tx kit	Flow meters (extra su	ipply)



4. Documentation and	4. Documentation and Order Forms					
Health Care Provider orders	Med Admin Record	Н&Р	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			
 per institutional gu Actual med constructed guidelines Binder with procedures personal Binder has 	Nurses' NotesDx test reportsActual medical record binder, constructed per institutional guidelines-• Actual medical record binder, constructed per institutional guidelines-• Binder with emergency procedures guidelines for school personal-• Binder has all emergency care plans for students (that nurse is		v Contact Card: has parents resses and back up people resses and permission to school; Protocols for Hypoglycemia in school r schools found crumpled order sheet has sliding scale tion and also carbohydrate rals. Includes name and dtime dose. Includes PRN (as needed) dosing for Will be placed in medical of case. ures for urgent issues for			

5.	5. Medications (to be available in sim action room)							
#	Medication	Dosage	Route		#	Medication	Dosage	Route
	ProAir Inhaler	2 puffs Q 4-6 hrs prn Asthma Exacerbation: 4- 8 puffs Q 20 minutes 3 doses	Inhaler with MDI					
	Epi-pen	0.3 mg	IM into outside thigh					





CASE FLOW / TRIGGERS / SCENARIO DEVELOPMENT STATES

Initiation of Scenario : School Nurse RN is called into health office at school from another classroom to assess a 5-year-old boy who is complaining of not being able to breathe and has audible wheezes and is coughing, and the smell from the carpet is irritating him. The school secretary says they can't find an inhaler for the student. When nurse arrives she uses the PAT (Pediatric Assessment Triangle) to assess the patient and to obtain an immediate history. Secretary hands her the emergency card and the Emergency Care /Action Plan. RN proceeds with treatment. Scenario ends when Paramedics arrive to assume care.

STATE / PATIENT STATUS	DESIRED LEARNER ACTIONS & TRIGGERS TO MOVE TO NEXT STATE			
 STATE / PATIENT STATUS Baseline Sitting up on gurney in the school office. States he "can't breathe" Child increases respiratory distress and says "I'm having a harder time breathing. The carpet smell is bothering me." Uses interrupted speech in one –two word sentences/ monotone 	DESIRED LEARNER ACTIONS & TRIGO Operator Trend vital signs over 3 minutes: HR 140 - 150; RR 40 – 50 (trend up over 2 min) O2 sat 93-91 trend down over 2 min. Breath sounds: wheezing (volume level on simulator 5) Supra/sub sternal, intercostal retractions.	GERS TO MOVE TO NEXT STATE Learner Actions Asks how things are going in calm voice, engaging child Observes environment Initiates assessment questions Reviews the Emergency Plan Assesses use of accessory muscles, asks operator about this; assesses struggling respiratory sounds, and increase in HR RR.	Debriefing Points: What did the school secretary say that concerned you? How did you adjust your communication tone and technique to obtain the information you need from the boy when he seemed panicked? What physical assessment findings concerned you most?	
in one -two word				





STATE / PATIENT STATUS	DESIRED ACTIONS & TRIGGERS TO	MOVE TO NEXT STATE	
2. Starts with stridor and	Operator:	Learner Actions:	Debriefing Points:
gets; voice become	Continue with strider and	Obtains inhaler with MDI	
staccato to demonstrate	wheezes, increase volume		What did you do to help calm and
increasing respiratory	on strider on sim program.	Assists client to sit up	focus the child?
distress.		Coaches client with pursed lip	
	HR 150-160; RR 50-55	breathing	Strategies for calming and
	(trend up over 2 min)		focusing distressed child
Responsive to directions	O2 sat 91-90 trend down	RN determines need for inhaler	
for pursed lip breathing.	over 2 min.	and locates the inhaler in the	Expected outcomes following
		medication cabinet. RN	inhaled medication
		administers ProAir with MDI	
		reassessment of respiratory rate,	
		pulse, skin signs/color and	Tell us about your assessment and
		capillary refill	the criteria for further intervention
		Delegates secretary or someone	
		else to initiate phone call to 911,	
		Parents, Administrator	
Complains "I am having a		Repeats inhaler	
harder time breathing of		treatment/administration;	
increased difficulty		continues to calm the student.	
breathing even after use			
of inhaler		RN uses SBAR to communicate	
		with 911 dispatcher; requests an	
		ETA (estimated time of arrival).	
		(, , , , , , , , , , , , , , , , , , ,	





STATE / PATIENT STATUS	DESIRED ACTIONS & TRIGGE	RS TO MOVE TO NEXT STATE	
3.	Operator:	Learner Actions:	Debriefing Points:
Continues to have	Continue current VS setting	Patient not improving	Were there key aspects of the
wheezes; stridor	Increase severity of cardiac	Emergency Department and	assessment data helped you
increases	and respiratory findings to	explains need for respiratory	determine the level of transport
	RR 55-60 and HR 160-170	precautions	you requested?
"I am having a harder time			
breathing"		RN notes that emergency care	Where there other treatments you
		states he has environmental	wanted to consider?
If Epi Pen not administered		allergies.	
trigger to encourage epi pen		Administers stocked-Epi Pen in	
adminstration:		response to student complaint of	
"I really need my Epi Pen		having difficulty breathing per	
now"		protocol.	
4.			
1 min after epi pen	Trend vital signs over 2	Reassess VS and Lung sounds,	What key assessment findings let
	minutes:	color starts to improve from pale	you know the medication was
"I feel a little better, it is	HR 120; RR 40	to pink; respiratory	effective.
starting to open up."	O2 sat 94 trend down over	effort/accessory muscle use	
	2 min.	Checks with admin support of	When would you consider a
		status of contacting Paramedics	second dose?
		and parents.	
			What are 3 significant learnings
		RN uses SBAR for hand off report	you can take forward into your
		to Paramedics .	clinical practice.





lf no Epi Pen:	If epi pen not given:	Debrief with Tone of
Student lethargic, not	Student become lethargic,	Advocacy/Inquiry:
responding; Paramedics		Advocacy: I am concerned that
arrive, end scenario and		you did not administer the Epi Pen
address issues of failure to	Trend vital signs over 2	given the students clear
treat in debriefing. Consider	minutes:	respiratory distress. Can you help
redo of scenario.	HR 70; RR 20	me understand your thought
	O2 sat 84 trend	process related to this?
		What would you do differently if
		faced with a similar situation next
		time?
Scenario End Point: EMT arriv	ves and hand off occurs/ RN should verbalize the	necessary documentation for school records;

Suggestions to <u>decrease</u> complexity: Remove Epi-Pen; make it not available Suggestions to <u>increase</u> complexity: Include acute, anaphylactic exacerbation reaction to the carpet cleaner with Saturation to 80%

Additional Notes for Debriefer

Quick PAT assessment and assessment of immediate MOI (mode of injury/onset) are critical in management of pediatric emergencies

Focused secondary assessments are used to pinpoint the intervention required. Asthma inhalers use can be repeated as needed for rescue

Epi-Pen can be used to relief asthma signs and symptoms in acute situations This scenario could include a significant acute, anaphylactic exacerbation reaction to the carpet cleaner

Clear, concise communication is critical.

School staff was not aware of what to do or how to locate the inhaler. Indicates need for teaching and further planning



APPENDIX A: HEALTH CARE PROVIDER ORDERS

Patient N	lame: W	illiiam Tagene	Diagnosis: Asthma
DOB: Ma	DOB: March 1, 2009		
	aar old		
Age: 5 y	ear olu		
MR#: 56	789		
†No Knov †Allergies			
Date	Time		IDER ORDERS AND SIGNATURE
Date	9:00		6 hours as needed for cough, wheeze,
	AM	shortness of breath	
		PROAIR HFA, 4-8 inhalations 20 mi	nutes for 3 doses as needed for acute asthma
		exacerbation	

Signature	







APPENDIX C: DEBRIEFING GUIDE

General Debriefing Plan							
Individual X Grou		ıp	With Video		X Without Video		
Debriefing Materials							
Debriefing Guide Obj		ectives X Debriefing Points		nts	X QSEN		
QSEN Competencies to consider for debriefing scenarios							
X Patient Centered Care	5	X Teamwork/Collaboration		Evi	idence-based Practice		
X Safety		Quality Imp	ty Improvement		ormatics		
Sample Questions for Debriefing							
 How did the experience of caring for this patient feel for you and the team? Did you have the knowledge and skills to meet the learning objectives of the scenario? What GAPS did you identify in your own knowledge base and/or preparation for the simulation experience? What RELEVANT information was missing from the scenario that impacted your performance? How did you attempt to fill in the GAP? How would you handle the scenario differently if you could? In what ways did you check feel the need to check ACCURACY of the data you were given? In what ways did you perform well? What communication strategies did you use to validate ACCURACY of your information or decisions with your team members? What three factors were most SIGNIFICANT that you will transfer to the clinical setting? At what points in the scenario were your nursing actions specifically directed toward PREVENTION of a negative outcome? Discuss school nurse roles and responsibilities during an emergency 							