Open RN Virtual Reality Scenarios

This is a working document with hyperlinks to new VR scenarios that are added as they are being created by WTCS faculty and the Open RN team. These scenarios are licensed under a Creative Commons CC BY 4.0 license so are free and openly available for faculty to use, adapt or modify. They have been designed for use with the Acadicus VR software platform but can be adapted for all types of simulation learning experiences. When using or adapting an Open RN VR Scenario Plan for use at your institution, please include an attribution statement according to CC BY licensing.

Disclaimer: These Nursing Open Educational Resources were developed under a $2.5 million grant from the Department of Education. However, those contents do not necessarily represent the policy of the Department of Education, and you should not assume endorsement by the federal government.

	Scenario Name Linked to the Scenario Plan	Overview	Learning Objectives
1	Administering Cardiac Medications to a Patient with Dementia	Miles Johnson is an 87 year old resident of Shady Acres rehabilitation facility. He has a past medical history of dementia, hypertension, atrial fibrillation, and chronic renal failure. Students must perform appropriate assessments prior to safely administering cardiac medication while also communicating therapeutically with a patient with dementia.	1. Obtain vital signs and interpret findings. 2. Administer cardiac medications safely. 3. Communicate therapeutically with a patient with dementia.
2	Addressing Safety Hazards	Miles Johnson is an 87 year old resident of a rehabilitation facility who was admitted for daily physical therapy after undergoing surgery for a hip fracture. He has a past medical history of dementia, hypertension, atrial fibrillation, and chronic renal failure. He walks with the assistance of one with a walker and requires assistance with ADLs. Students must identify and resolve safety hazards in Miles' room while also communicating therapeutically with him.	1. Identify common safety hazards in a patient care environment. 2. Communicate therapeutically with clients regarding safety concerns.
3	Caring for a Pediatric Patient Experiencing Pain	Ella Peterson is a 7 year-old patient who underwent a tonsillectomy this morning. She tolerated the surgery well but was unable to swallow fluids during the post-op recovery period so has been admitted for overnight observation. Her mother was at Ella's bedside all day, but recently went home. The student should assess and safely manage Ella's pain while communicating therapeutically with her.	1. Interpret vital signs for a pediatric patient 2. Perform an appropriate pain assessment for a pediatric patient 3. Safely administer analgesics to a pediatric patient using accurate math calculations 4. Tailor therapeutic communication for a pediatric patient

			5. Encourage non-pharmacological pain interventions
4	**Caring for a Client with Chronic Heart Failure**	Hector Fernandez is a 62 year-old Hispanic male recently admitted to a long term care facility due to recent falls. He has a history of chronic heart failure. Students must assess Hector while communicating therapeutically regarding his concerns. Any new or unexpected findings should be communicated to the provider and cardiac medications administered safely.	1. Assess a client with chronic heart failure and distinguish between expected findings and findings indicating a change in condition 2. Analyze lab work results 3. Safely administer cardiac medications 4. Communicate therapeutically 5. Communicate with the provider using SBAR format
5	**Administering Nitroglycerin to a Client with Chronic Angina**	Students assess a newly admitted resident of a Long-Term Care (LTC) facility who reports feelings of chest pressure and use clinical judgment regarding administration of prescribed forms of Nitroglycerin.	1. Obtain and interpret vital signs 2. Perform a focused assessment for chest pain 3. Administer nitroglycerin safely and effectively 4. Apply the nursing process to a client experiencing chronic chest pain 5. Communicate therapeutically with a client experiencing chest pain
6	**Hospice Scenario**	Students provide comfort for a client receiving hospice care including insertion of a Macy catheter.	1. Perform appropriate focused assessments for a hospice client 2. Insert a Macy catheter and administer medication 3. Provide patient and family education regarding placement and use of the Macy catheter at home 4. Therapeutically communicate with a patient at the end of life.
7	**Pharmacology Scenario**	This scenario has been designed for maximum flexibility for use in the classroom or in a simulation center. Students perform appropriate pre-assessments to determine if a medication can be safely administered to a VR patient. Students may also perform post-assessments after administration of medication to determine if side/adverse effects are occurring or if desired therapeutic outcomes are being met. A formulary of available medications for administration is aligned with the classes of medications in the Open RN *Nursing Pharmacology, 2e* OER text book.	1. Apply components of the nursing process to the administration of medications 2. Safely administer medications to diverse client populations 3. Use appropriate communication techniques
8	**Alcohol Withdrawal**	Students assess a virtual patient withdrawing from alcohol in a Medical Surgical hospital unit and appropriately administer medication based on a CIWA protocol.	1. Administer CIWA-Ar 2. Accurately administer medications according to provider orders

			3. Provide a safe environment for patient who is experiencing withdrawal
9	**OB - Routine Active Labor**	Students will care for a multifunction OB virtual patient that progresses routinely through the stages of active labor to the transitions stage then pushing. Simulated EHR forms are provided.	1. Maintain a safe, effective health care environment for a client in active labor. 2. Provide patient-centered care by utilizing the nursing process for a client in active labor. 3. Relate the client's health status to assessment findings, medications, laboratory and diagnostic results, and medical and nursing interventions. 4. Plan pain management during labor based on client preferences. 5. Plan assessments and interventions associated with epidural anesthesia. 6. Provide patient education during active labor to the client and her partner. 7. Communicate therapeutically. 8. Report complete, accurate, and pertinent information to the health care team.
11	OB Complication: **Preeclampsia**	Students will care for a multifunction virtual OB patient experiencing pre-eclampsia. Cecelia Roberts is a 22-year-old African-American, G1P0 at 33 weeks gestation. She is admitted to the maternity unit for complaints of a frontal headache, seeing spots before her eyes and RUQ pain. Her boyfriend, Jack, and mother, Sarah, are with Cecelia. Students perform a focused antepartum assessment, apply the nursing process, and use clinical judgment to provide safe, effective care.	1. Maintain a safe, effective health care environment for an antepartum client. 2. Provide patient-centered care by utilizing the nursing process for an antepartum client. 3. Relate the client's health status to assessment findings, medications, laboratory and diagnostic results, and medical and nursing interventions. 4. Administer magnesium sulfate safely and effectively. 5. Provide health teaching to the client, her partner, and family members. 6. Communicate therapeutically. 7. Report complete, accurate, and pertinent information to the health care team.

12	Transgender Male - Vaginal Delivery With Nuchal Cord	Students will care for a multifunction, transgender male virtual OB patient presenting to the hospital in active labor experiencing contractions at 39 weeks 6 days gestation. They are 5 cm dilated and have been progressing well. However, during the course of labor, variable decelerations in fetal heart rate are observed, requiring careful monitoring and interventions. Despite this, Anthony expresses a strong desire for a natural labor and birth experience. Students will provide routine intrapartum care throughout all three stages of the scenario, ensuring that the patient's unique needs and preferences as a transgender individual are respected and supported.	1. Demonstrate effective communication skills in providing person-centered care to transgender individuals throughout the birthing process, acknowledging their unique experiences, identities, and preferences. 2. Apply knowledge of the physiological changes and considerations specific to transgender males during pregnancy and childbirth, including hormone therapy and surgical history, to provide appropriate and safe care. 3. Assess and address the psychological and emotional needs of transgender male individuals during labor and birth, creating a supportive and inclusive environment that promotes their dignity, autonomy, and comfort. 4. Demonstrate competency in the use of inclusive and gender-affirming language, avoiding misgendering and utilizing appropriate terminology to respect and validate the transgender male individual's identity and experiences. 5. Utilize culturally competent nursing interventions to address potential barriers and challenges faced by transgender male individuals during the birthing process, including addressing discrimination, stigma, and systemic inequalities. 6. Collaborate effectively with the interprofessional healthcare team, including obstetricians, midwives, and other healthcare providers, to ensure coordinated and comprehensive care for transgender male individuals during vaginal birth, taking into consideration their specific needs and preferences. 7. Identify and respond appropriately to potential complications or emergencies that may arise during labor and birth for transgender male individuals, implementing evidence-based

			practices and adapting care strategies as needed. 8. Reflect on personal biases, assumptions, and attitudes towards transgender individuals and their reproductive experiences, fostering a more inclusive and affirming healthcare practice. 9. Promote advocacy and empowerment for transgender individuals by providing information, resources, and support networks that address their unique healthcare needs during pregnancy, childbirth, and postpartum. 10. Evaluate the effectiveness of the simulation scenario and personal performance in providing gender-affirming and inclusive care to transgender male individuals during vaginal birth, identifying areas for improvement and further learning.
13	Gen 2 Multi-function patient: Atypical Chest Pain Level 1	Students perform a focused subjective and objective assessment for a female multifunction VR patient in an Emergency Department setting who is experiencing chest pain that she relates to "indigestion."	1. Accurately perform focused pain and cardiovascular assessments 2. Safely administer medications 3. Communicate therapeutically 4. Report complete, accurate, and pertinent information to the health care team
14	Gen 2 Multi-function Patient: Atypical Chest Pain - Level 2	Students perform a focused subjective and objective assessment for a female multifunction VR patient in an Emergency Department setting who is experiencing chest pain that she relates to "indigestion," then analyze lab results, prioritize orders, and appropriately administer medications.	1. Administer cardiac related medications safely 2. Interpret cardiac-related lab results 3. Prioritize nursing care for a female patient with new onset chest pain 4. Communicate therapeutically with a patient experiencing an acute health care crisis 5. Report complete, accurate and pertinent information to the health care team
15	Gen 2 Multi-function Patient: Atypical Chest Pain Level 3	In this scenario, students perform a focused assessment for a female multifunction virtual patient experiencing chest pain, analyze lab results and ECG results, and implement interventions based on a STEMI protocol.	1. Accurately perform focused pain and cardiovascular assessments 2. Interpret lab results

			3. Prioritize provider orders related to a STEMI protocol 4. Safely administer medications 5. Communicate therapeutically with a patient experiencing an acute health care crisis 6. Report complete, accurate, and pertinent information to the health care team
16	Gen 2 Multi-Function Patient: Asthma Level 1	Millie is a 57-year-old multifunction virtual female patient who presents to the clinic in stable condition for a follow-up appointment related to worsening of her asthma. Students should perform a focused respiratory assessment and analyze her current respiratory status according to the Asthma Severity protocol provided.	1. Accurately perform a focused respiratory assessment 2. Recognize and report deviation from norms 3. Communicate therapeutically
17	Gen 2 Multi-Function Patient: Asthma Level 2	Maria is a 57-year-old multifunction virtual female patient who presents to the clinic for a follow-up appointment related to worsening of her asthma. She is in stable condition but in the "yellow zone" according to her Asthma Action Plan. Students should perform a focused subjective and objective respiratory assessment, analyze her respiratory status according to her Asthma Action Plan and Asthma Severity protocol, report abnormal findings to the provider, perform patient education, and accurately document findings.	1. Accurately perform a focused respiratory assessment 2. Recognize and respond to deviation from norms 3. Provide patient education regarding how to administer respiratory medications 4. Communicate therapeutically 5. Report complete, accurate, and pertinent information to the health care team
18	Gen 2 Multi-Function Patient: Head to Toe Assessment - Level 1	Students perform a head to toe assessment on a virtual multifunction patient and appropriately document their findings.	1. Accurately perform a comprehensive physical exam. 2. Communicate professionally. 3. Recognize and report deviations from norms. 4. Accurately document physical examination findings.
19	OB - Routine Postpartum Care: Vaginal Delivery	Students will provide postpartum care for a multi-function OB virtual patient after a routine vaginal delivery.	1. Maintain a safe, effective health care environment 2. Perform proficient comprehensive assessments 3. Provide patient centered care by utilizing the nursing process 4. Relate patients' health status to assessment findings, medications, laboratory and diagnostic test results, medical and nursing interventions 5. Provide patient education regarding postpartum and newborn topics 6. Model effective communication strategies for clients based on clients' age, developmental

			level, disability and/or culture and team characteristics.
20	OB - Postpartum Care: Emergent C-section	Students will provide postpartum care and interact therapeutically with a multifunction OB virtual patient after an emergent C-section following a motor vehicle accident. The newborn was admitted to NICU with hypoxic ischemic encephalopathy Technician prompts and a Spanish-version handout are provided for an optional feature of a patient who only speaks Spanish.	1.Maintain a safe, effective health care environment 2.Perform proficient comprehensive assessments 3. Provide patient centered care by utilizing the nursing process 4. Relate patients' health status to assessment findings, medications, laboratory and diagnostic test results, medical and nursing interventions 5. Provide patient education regarding postpartum and newborn topics 6. Model effective communication strategies for clients based on clients' age, developmental level, disability and/or culture and team characteristics.
21	OB Complication: Placental Abruption	Students will care for a multifunction OB virtual patient in an ED setting after experiencing a motor vehicle accident. The client develops vaginal bleeding and is diagnosed with a partial placental abruption.	1. Maintain a safe, effective health care environment for a client in an emergent obstetrical situation. 2. Provide patient-centered care by utilizing the nursing process for a client undergoing an obstetrical emergency. 3. Relate the client's health status to assessment findings, medications, laboratory and diagnostic results, and medical and nursing interventions. 4. Recognize the signs and symptoms of placental abruption. 5. Plan support of maternal fetal circulation during a placental abruption. 6. Plan assessments and interventions associated with surgical intervention for a client experiencing a placental abruption. 7. Provide patient education to the client and her partner/family. 8. Communicate therapeutically. 9. Report complete, accurate, and pertinent information to the health care team.
22	Gen 2 Multi-Function Patient: Opioid Overdose	Phoebe James, is a 58-year-old female with a recent history of left total knee arthroplasty, three weeks ago. She presents to the emergency department accompanied by her husband with initial complaints of difficulty breathing and left knee pain. These	1. Maintain a safe, effective health care environment. 2. Provide patient-centered care by utilizing the nursing process. 3. Assess a client with pain who is experiencing respiratory distress in an acute care setting,

		developments require comprehensive assessment and communication to manage her respiratory distress and pain. The case emphasizes the challenge of managing a patient's care in an acute care setting through a patient-centered approach.	distinguishing between expected findings and findings indicating a complication. 4. Incorporate factors that affect health equity into the plan of care for patients with pain. 5. Perform a thorough head to toe examination of the client with a focused assessment on the respiratory and musculoskeletal systems. 6. Analyze lab work results. 7. Educate the patient and caregivers about narcotic therapy and complementary and integrative therapies for pain management. 8. Use clinical judgment to plan evidence based nursing care to promote comfort and prevent complications in patients with pain. 9. Safely administer medications 10. Communicate therapeutically. 11. Communicate with the provider using ISBAR format.
23	OB Active Labor With Adoption	Students will care for a multifunction OB virtual patient portraying a young mother presenting to the hospital in active labor experiencing contractions at 38 weeks 6 days gestation, whose pregnancy was discovered at 36 weeks 1 day gestation. The technician or faculty member may role play the client's mother or the fetus's adoptive family at the bedside to add additional family dynamics to the scenario.	1. Maintain a safe, effective health care environment for a client in active labor. 2. Provide patient-centered care by utilizing the nursing process for a client in active labor. 3. Relate the client's health status to assessment findings, medications, laboratory and diagnostic results, and medical and nursing interventions. 4. Plan pain management during labor based on client preferences. 5. Plan assessments and interventions associated with epidural anesthesia or intravenous analgesia. 6. Provide patient education during active labor to the client and her support team. 7. Communicate therapeutically. 8. Report complete, accurate, and pertinent information to the health care team.
24	OB Complication: Fetal demise	Students will care for a multifunction OB virtual patient portraying a 19-year old female presenting to the hospital accompanied by an older male, who she identifies as her uncle. He reports to the intake nurse that she has been experiencing symptoms of burning with urination, fever, and flank pain. The client looks to her uncle to answer all of the	1. Maintain a safe, effective health care environment for a client experiencing fetal loss compounded by being a victim of human trafficking.

		questions. Students provide routine care throughout all three states of the scenario. A simulated EHR with tabbed chart content is available on the WOW cart to augment the reality of the scenario. The technician or faculty member may role play the client's uncle at the bedside to add additional family dynamics to the scenario.	2. Relate the client's health status to assessment findings, medications, laboratory and diagnostic results, and medical and nursing interventions. 3. Provide patient education to the client and her family members. 4. Communicate therapeutically. 5. Report complete, accurate, and pertinent information to the health care team. 6. Recognize indicators of Human Trafficking, potential signs and red flags that may suggest a patient is a victim of human trafficking, such as physical injuries, identifying tattoos, behavioral changes, or inconsistencies in their personal information. 7. Conduct a Trauma-Informed Assessment, recognizing that victims of human trafficking may have complex physical and psychological needs. 8. Establish trust and build rapport with patients like Maya who may be reluctant or fearful of disclosing their situation due to trust issues with healthcare providers. 9. Collaborate with social workers, law enforcement, and other relevant agencies to ensure the safety and well-being of the patient, while respecting their autonomy.
25	Gen 2 Multi-Function Patient: Heart Failure With New Onset Diabetes	Students will care for a multifunction virtual patient who was recently admitted to a long-term care facility due to recurring falls at home. At the time of admission, he had a history of chronic heart failure. Since then, he has been diagnosed with diabetes mellitus and has mostly been lying in bed. Students should perform a comprehensive assessment as well as provide therapeutic communication focusing on his concerns related to the new conditions.	1. Assess a client with chronic heart failure and new onset diabetes mellitus, distinguishing between expected findings and findings indicating a change in condition. 2. Assess for complications of immobility. 3. Analyze lab work results 4. Educate the patient about diabetes management, including medication administration, blood glucose monitoring, diet modifications and foot care. 5. Safely administer medications.

			6. Safely carry out treatment plans as ordered. 7. Communicate therapeutically. 8. Communicate with the provider using SBAR format.
26	Gen 2 Multi-Function Patient: End of Life Care - End Stage Heart Failure	Hector Fernandez, a 62 year-old Hispanic male, was admitted to a long-term care facility several months ago with chronic heart failure and recurrent falls. He was subsequently diagnosed with new onset diabetes mellitus and developed an infected pressure ulcer. Months later, he contracted Influenza A during a nursing home outbreak, causing a further decline in his health. He was recently admitted into hospice care with end-stage heart failure. Students provide care to Hector who is actively dying and provide therapeutic communication to his family member who is at the bedside	1. Assess a hospice patient with advanced chronic conditions in the long-term care setting, differentiating between expected end-of life changes and those indicative of acute exacerbations. 2. Conduct a comprehensive head-to-toe assessment of a hospice patient, considering the unique needs and comfort measures required in end-of-life care. 3. Provide health teaching to clients and their family members on the progression of chronic conditions, symptom management at end of life, and the goal of comfort in the end-of-life stage. 4. Demonstrate safe and compassionate medication administration techniques tailored to the needs of a hospice patient in the long-term setting. 5. Perform necessary comfort-oriented treatments, focusing on symptom relief and enhancing the patient's quality of life in the end-of-life stage. 6. Utilize therapeutic communication techniques that are sensitive to the emotional psychological needs of the patient and their family during the end-of-life journey. 7. Effectively communicate with the healthcare provider using the ISBAR format in the context of hospice care, ensuring clear and efficient exchange of critical information for decision-making and care planning.

***Gen 2 multi-function patients and the Birthing Simulator have flexible functionality in the Acadicus platform that faculty can customize, similar to using a high-fidelity simulator. The Open RN Scenario Plans for Gen 2 and OB patients include debriefing questions based on Tanner's Clinical Judgment Model and Lasater's Clinical Judgment Rubric