

TYPICAL CHEST PAIN MALE

Estimated Time: 60 minutes • Debriefing Time: 60 minutes



Scan to Begin



Patient Name: Michael I. Milbourn

SCENARIO OVERVIEW

Michael L. Milbourn is a 69-year-old male who arrived in the ED via ambulance after walking into an urgent care clinic with worsening chest pain. Students will implement orders for non-STEMI chest pain including titrating IV Nitroglycerin and implementing pre-op orders for Coronary Artery Bypass Grafting (CABG) surgery. Pre-op medication administration orders include: IV Heparin, IV Regular Insulin drip, and an IV antibiotic.

LEARNING OBJECTIVES

1. Administer cardiovascular system drugs safely
2. Interpret cardiac-related lab results
3. Prioritize nursing care for a male patient with worsening chest pain and a non-STEMI
4. Communicate therapeutically with a patient experiencing an acute health care crisis
5. Implement pre-op coronary artery bypass grafting (CABG) orders
6. Report complete, accurate, and pertinent information to the health care team

CURRICULUM MAPPING

WTCS NURSING PROGRAM OUTCOMES

- Demonstrate appropriate written, verbal, and nonverbal communication in a variety of clinical contexts
- Provide patient centered care by utilizing the nursing process across diverse populations and health care settings
- Minimize risk of harm to patients, members of the healthcare team and self through safe individual performance and participation in system effectiveness

BASIC SKILLS

- Perform mathematical calculations related to clinical practice
- Manage oxygen therapy
- Manage intravenous therapy

PHARMACOLOGY

- Apply components of the nursing process to the administration of cardiovascular drugs

NURSING FUNDAMENTALS

- Maintain a safe, effective care environment for adults of all ages
- Use appropriate communication techniques
- Use the nursing process

- Provide nursing care for patients with comfort alterations
- Adapt nursing practice to meet the needs of diverse patients in a variety of settings

HEALTH ALTERATIONS

- Plan nursing care for patients with alterations in the cardiovascular system
- Plan nursing care for patients undergoing surgery (peri-operative)

SIMULATION LEARNING ENVIRONMENT & SET-UP

ENVIRONMENT

Inside room: Patient on bed, emergency room setting

Inside or outside room: Hand sanitizer or sink

Outside room: Computer or form(s) for documentation, Medications with QR labels

PATIENT PROFILE

Name: Michael I. Milbourn

Spiritual Practice: Christian, Protestant

DOB: 09/18/19XX

Ethnicity: African American

Age: 69

Primary Language spoken: English

MR#: 1720

Allergies: NKDA

Gender: Male

Admitting Diagnosis: Angina (I20.1)

Height: 185 cm (73 inches)

Chronic Medical Diagnoses: Hypertension (I10), Hyperlipidemia (E78.5), Diabetes Mellitus Type 2 (E11.9), Coronary Artery Disease (I25.10)

Weight: 115 kg (253 lbs.)

Code Status: Full code

EQUIPMENT/SUPPLIES/SETTINGS

Patient

- Hospital gown with nasal cannula at 2 lpm
- Moulage to appear slightly gray and diaphoretic
- ID band with QR code
- IV 18 gauge with 0.9% NS at TKO rate
- Second IV 18 gauge saline lock
- Jewelry present

Monitor Settings

- On cardiac monitor with pulse oximetry
- Vitals: BP 170/96, P 120, RR 24, O2 93%, T 37.5C (99.5F), Pain: 8/10

Supplies

- General
 - Equipment to obtain vitals including oxygen saturation
 - Phone
 - Heart pillow to splint incision after surgery
- Medications (realistic IV labels are available by scanning the QR code)
 - Nitroglycerin 0.4 mg sublingual – patient supply in small brown glass bottle
 - Aspirin chewable tablets 81 mg – 4 tabs
 - Nitroglycerin IV in a clear glass bottle
 - Morphine IV
 - Mupirocin ointment
 - Cefazolin IV
 - Regular Insulin 100 units in 100 ml 0.9% NS

QR CODES

<p>START</p> 	<p>PATIENT</p> 	<p>REPORT</p> 	<p>PATIENT ID</p> 
<p>NITRO PO</p> 	<p>NITRO IV</p> 	<p>MUPIROCIN</p> 	<p>CEFAZOLIN IV</p> 
<p>REGULAR INSULIN IV</p> 	<p>INCENTIVE SPIROMETER</p> 	<p>ASPIRIN</p> 	<p>MORPHINE IV</p> 

TEACHING PLAN

PREBRIEF

The facilitator should lead this portion of the simulation. The following steps will guide you through Prebrief.

- Scan the “**Scan to Begin**” QR Code while students are in Prebrief
- “Meet Your Patient” (on iPad) and explain how the iPad works in the simulated learning environment including:
 - Explain how to use the iPad scanner and QR codes. Remind students that there are multiple QR codes in the simulation, but they should only scan them if they think it will provide data necessary for their assessment and evaluation of the patient.
 - For some scenarios, it may be helpful to tell students where the QR Code are located. For others, you may want students to “find” the QR Codes during their assessments. This is your choice.
 - Describe how a QR Code sound will work in the scenario. Show them how to use the ARISE “stethoscope” and the symbol on the QR Code that signifies when a QR Code is audio 🎧. Example: **QR Code: Chest** 🎧
 - As the facilitator, you should be aware that throughout the simulation some QR codes are necessary to the programming of the iPad content. Directions for which QR codes are required (to be scanned) in each state are listed under each state of the documentation below. The QR codes are also in **BOLD** type.
 - Level Up tab – This tab “tells” the content in the iPad to change to what is needed for the next state of a simulation. It also helps student know where they are at in a scenario and it may give “clues” as to how to progress.
- Discuss the simulation “Learning Objective(s)” (on iPad) as well as any other Prebrief materials
- Get “Report” (on iPad)
 - Possible Facilitator Question
 - When you hear that someone is having chest pain, what are your immediate concerns?
- Play the “Patient” video (on iPad)

- Possible Facilitator Question
 - Based the patient' subjective complaint, what are your priorities of care?
- Advance to the “Patient Profile” screen (on iPad). This will act as a simulated patient chart.
- Students can view the tabbed content on the iPad (see below) prior to entering the patient’s room and throughout the simulation as needed.
 - You should give student some time (5 minutes) to review this content now, prior to entering the patient’s room.
 - Now, students can enter the room and begin the next state of the simulation.

HISTORY & PHYSICAL

Name: Michael I Milbourn

MR#: 1720

DOB: 09/18/19XX

CC/HPI: Michael walked into the Urgent Care clinic complaining of chest pain asking the staff, “Should I take my Nitroglycerin?” 911 was called as he took his own Nitroglycerin tabs sublingually x 3 doses. Aspirin was administered in the ambulance as he was brought to the Emergency Room complaining of chest pain “like a truck is sitting on my chest” with shortness of breath and diaphoresis. A STAT EKG was ordered which demonstrated an inverted T wave indicating ischemia.

PAST MEDICAL/SURGICAL HISTORY: Michael has a history of hyperlipidemia, diabetes mellitus Type 2, hypertension, and coronary artery disease documented on a coronary angiogram last week. Michael had scheduled an elective coronary artery bypass surgery for next week.

ER/HOSPITALIZATIONS IN THE LAST 12 MONTHS: None

MEDICATIONS: Atorvastatin 40 mg daily, Metoprolol XR 50 mg daily, Clopidogrel 75 mg daily, Metformin 500 mg daily, Lisinopril 10 mg daily, Aspirin 81 mg daily, Nitroglycerin 0.4 mg prn

ALLERGIES: NKDA

FAMILY MEDICAL HISTORY: Father had MI age 65

REVIEW OF SYSTEMS: Abbreviated due to acuity of current medical condition.

HEENT: Denies injury, change in level of consciousness, or headaches or change in vision.

Respiratory: Complains of mild shortness of breath that started with chest pain.

Cardiovascular: Chest pain started this afternoon when he was working in the yard. No history of murmur or valve disorder. History of hypertension, hyperlipidemia and coronary artery disease documented on coronary angiogram last week. He received a prescription for Nitroglycerin at that time but reports he “never took it because the pain usually goes away if I stop and rest.”

Peripheral Vascular: Denies claudication, leg cramps, parasthesias or edema.

Gastrointestinal: Denies change in appetite, weight gain/loss.

Endocrine: History of diabetes mellitus treated with metformin. Denies polydipsia or polyuria.

PHYSICAL EXAM:

Vital signs: BP 170/96, P 120, RR 24, O2 93%, T 37.5C (99.5F), Pain: 8/10

height= 157 cm (5'2), weight= 72 kg

Pain Scale 9/10

General Appearance: 69-year-old male who appears stated age and is well developed, well hydrated, and well nourished. Maintains good eye contact and interacts appropriately. Is alert and oriented x 3.

HEENT: unremarkable

Integument: Normal turgor.

Respiratory/Chest: Breath sounds clear. No wheezes, rales or crackles. Minimal effort. No cyanosis or clubbing.

Cardiovascular: Regular S1S2 rhythm without murmur.

Vascular/extremities: Pedal pulses – L 2/4 / R 2/4 Capillary refill time less than three seconds. Extremities normal color. No edema.

Gastrointestinal/abdomen: Bowel sounds positive in four quadrants.


Genitourinary: No CVA tenderness.

Recent Labwork: STAT ECG shows NSTEMI with T wave inversion. Awaiting cardiac enzymes.

ASSESSMENT/PLAN: STAT Cardiologist consult.

Electronically Signed - Dr. Bernard, MD

ORDERS


Orders


Patient Name: Michael I. Milbourn
DOB:09/18/19XX Weight(kg):115
MR#: 1720
Provider: Dr. Bernard
Allergies: NKDA

Date	Time	Order
Today	15 minutes ago	CK-MB, Troponin, CBC, Electrolytes, BUN, Creatinine, Glucose, Magnesium, INR, PTT STAT
		12 lead ECG STAT and notify provider of results
		Chewable non-enteric coated aspirin 325 mg PO STAT
		If O2 sat < 94%, start O2 via NC at 4 L and titrate prn
		Nitroglycerin 0.4 mg Sublingually q 5 mins for 3 doses PRN for chest pain
		IV with 0.9%NS at TKO rate -----
		----- Dr. Bernard, M.D.
Today	10 minutes ago	Cardiology consult STAT
		Continuous cardiac monitoring and oximetry.-----
		----- Dr. Bernard, M.D.

[Continue >](#)

MAR

Facilitator Note: Students may click on each underlined medication for a hyperlink with medication information provided by National Library of Medicine.


MAR

Patient Name: Michael I. Milbourn
DOB:09/18/19XX Weight(kg):115
MR#: 1720
Provider: Dr. Bernard
Allergies: NKDA

Order	Sch. Time	Dose
Chewable non-enteric coated <u>aspirin</u> 81 mg four tabs PO STAT	Given by EMS	
Nitroglycerin 0.4mg sublingually q5 minutes for 3 doses prn for chest pain	3 doses taken before arrival	
0.9% NS at TKO rate		

[Continue >](#)


VITALS

The iPad reads, “No reports available. You must verify the patient before vitals can be taken.”

PROGRESS NOTES

No reports available.

LABS-DIAGNOSTICS



Labs-Diagnostics

Patient Name: Michael I. Milbourn **DOB:** 09/18/19xx **MR#:** 1726

Chem 7* and Magnesium				
	Date Time	Today now	Units	Reference Range
*Glucose		210	mg/dL	Fasting 70-105
*BUN		28	mg/dL	10-25
*Creatinine		1.8	mg/dL	F: 0.4-1.4/M: 0.5-1.5
*Sodium		144	mEq/L	135-145
*Potassium		3.6	mEq/L	3.5-5.3
*Chloride		98	mEq/L	98-108
*Calcium		8.6	mg/dL	8.5-10.5
Magnesium		1.8	mEq/L	1.5-2.4

CBC with Differential				
	Date Time	Today Now	Units	Reference Range
WBC		8.0	x10 ³ /uL	4.5-11
RBC		5.1	x10 ⁶ /uL	F: 4.2-5.4/M: 4.6-6.2
HgB		15.1	g/dL	F: 13.0-15.0/M: 14.0-17.0
HCT		45.3	%	F: 38-47/M: 42-52
MCV		85.3	fL	80-90
MCH		27.8	pg	27-32
MCHC		33.6	g/dL	32-36
RDW		13.2	%	11.5-14.5
Platelet		224	x10 ³ /uL	150-450
MPV		7.8	fL	6.0-12.0
Neutro		60	%	40-70
Lymph		24	%	22-40
Mono		2.3	%	1-10
Eos		1.4	%	1-7
Baso		0.8	%	0-2

Cardiac Enzymes				
	Date Time	Today Now	Units	Reference Range
CK-MB		10.0	Ng/ml	0.0-5.0
Troponin		5.1	ug/L	0.0-0.1


Coagulation				
	Date Time	Today Now	Units	Reference Range
PT		11.2	seconds	11-12.5
INR		1.0		1.0
aPTT		27		Less than 35

[Continue >](#)

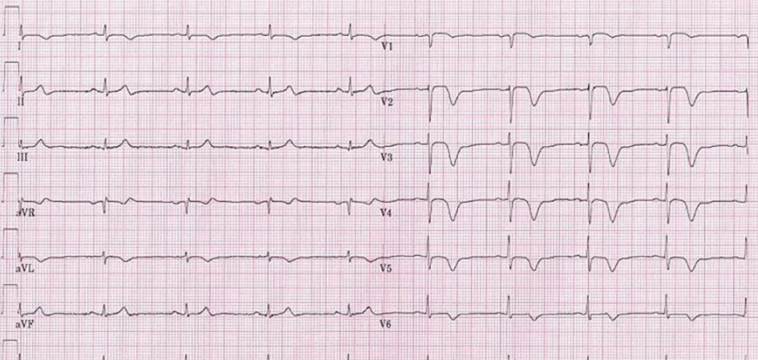
IMAGING

No reports available.

ECG RESULTS



ECG Results



Patient Name: Michael I. Milbourn

DOB: 09/18/19xx MR#:1720

MD Interpretation: T-wave inversion. Please correlate clinically.

SCANNER

STATE 1

ASSESS PATIENT & IMPLEMENT ORDERS

- Patient Overview
 - Patient is in pain 9/10, slightly short of breath, slightly sweaty and slightly anxious. He is complaining of “heart burn” and “gas” that started about this morning that has now become “chest pain” like a “truck sitting on his chest.” He is asking, “Do you think it’s a heart attack?”
- Expected Student Behaviors
 - Introduce themselves
 - Verify the patient (Scan **QR Code: Patient ID**)
 - Assess chief complaint
 - Determine if any meds should be administered (Paramedics administered aspirin and he already took three Nitro before coming to ED.)
 - May obtain vital signs (may enter Vitals on iPad after **QR Code: Patient ID** is scanned)
 - Assess oxygen status and titrate oxygen to achieve 94% according to orders
 - Review lab work by tapping on Labs-Diagnostics tab
 - Review ECG results by tapping ECG Results tab
- Possible Facilitator Questions
 - What are your concerns based on your assessment findings?
 - How will you prioritize the orders?
 - Why is oxygen required even if he is at 93%?
 - What are the therapeutic effects of aspirin and Nitroglycerin in this situation?
 - Why might Mr. Milbourn have a headache?
 - Compare stable angina to unstable angina: what are the characteristics?
- Technician Prompts
 - Patient is concerned and moderately anxious.

- Patient responses can include:
 - “It feels like a truck is sitting on my chest.”
 - “I feel sweaty and a little winded... can’t catch my breath.”
 - “This pain in my chest is 8/10.”
 - “I’ve had chest pain before but it usually goes away after I sit and rest.”
 - “I have never taken Nitro before. I took three doses in the clinic and now I have a horrible headache.”
- Tabbed iPad Prompts & Content Changes
 - Vitals
 - When the Vitals tab is tapped, the iPad reads, “No reports available. You must verify the patient before vitals can be taken.”
 - After students scan the **QR Code: Patient ID**, the iPad will allow students to enter vitals on the “enterable” vitals screen.
 - This is optional as they are not tied to any iPad programming.
 - Level Up
 - The Level Up tab appears after student’s view both the Labs-Diagnostics tab and the ECG results tab.
 - This action also automatically advances the iPad content to State 2.
 - When the Level Up tab is tapped, the iPad reads, “You have successfully progressed to State 2.”
 - When students go back to the menu from the Level Up tab, the iPad automatically reads, “New Orders Received.”

VITALS

The iPad reads, “No reports available. You must verify the patient before vitals can be taken.”

- Facilitator Note: Students can enter vitals here (They are not tied to any iPad programming.). Must scan **QR Code: Patient ID** first.

LEVEL UP

- The Level Up tab appears after student’s view both the Labs-Diagnostics tab and the ECG results tab.
 - This action also automatically advances the iPad content to State 2.
- When the Level Up tab is tapped, the iPad reads, “You have successfully progressed to State 2.”
- When students go back to the menu from the Level Up tab, the iPad displays “New Orders Received.”

STATE 2

IMPLEMENT PRE-OP CABG ORDERS

- Patient Overview
 - ECG and lab results indicate a non-STEMI is occurring. New pre-op orders are received from cardiology for a STAT CABG.
 - Michael is anxious and has a lot of questions about the surgery. (Michael had a previous cardiac catheterization last week and had been recommended a CABG at that time, but he elected to postpone the surgery due to family commitments.)
 - Patient continues to have chest pain so Nitroglycerin IV is ordered along with IV Morphine prn. In addition to implementing the other pre-op orders, students should initiate IV Regular Insulin and IV Cefazolin while also communicating therapeutically and addressing Michael's concerns.
- Expected Student Behaviors
 - Prioritize and organize orders according to patient status
 - Administer Nitroglycerin IV (Scan **QR Code: Nitro IV** for medication label) and titrate medication as ordered for chest pain while monitoring vitals and maintaining SBP > 100.
 - Students should recognize he already had 3 Nitroglycerin sublingual doses before arrival
 - Students should calculate initial Nitro IV rate of 1.5 ml/hour
 - Administer Morphine IV if patient continues to experience chest pain (Scan **QR Code: Morphine IV** for medication label)
 - Obtain vitals every 15 minutes
 - Obtain informed consent (within RN Scope of Practice)
 - Students can access this form under the "Informed Consent" tab.
 - Facilitator Note: this form can be printed from this documentation for use during the scenario.
 - Provide pre-op patient education including: how to use the heart pillow and the incentive spirometer (Scan **QR Code: Incentive Spirometer** if an actual incentive spirometer is not available. This shows an image of an incentive spirometer.)

- Apply surgical wash to groin and surgical sites
- Remove jewelry
- Initiate NPO status
- Insert Foley catheter
- Recognize pre-op blood sugar is >140 and administer Insulin drip (Scan **QR Code: Regular Insulin IV** for medication label) and once on insulin drip, students should obtain finger stick glucose and urine output hourly
- Page chaplain to notify of surgery and to speak to patient and wife
- Confirm patient took AM beta blocker if not contact the surgeon
- Call “lab” for additional pre-op labs and diagnostics: Hemoglobin A1C, Type and Screen
- Call “radiology” for pre-op CXR
- Administer Mupirocin in nostrils (Scan **QR Code: Mupirocin** for medication label)
- Administer Cefazolin IV according to weight (Scan **QR Code: Cefazolin IV** for medication label)
 - Students should calculate 2 grams.
- Technician Prompts
 - Patient is still in denial that this is happening, “I can’t believe I’m having a heart attack.”
 - Patient should lament that he waited to have the CABG surgery, but create a story about a family obligation like a daughter’s graduation, wedding, etc... that he wanted to attend and didn’t want to “pull people away” from the event to focus on him.
 - As student is administering medications, patient responses can include:
 - Ask questions related to what the medications are for and demonstrate some anxiety about all the IVs
 - Ask for a drink of water (but students should recognize he is NPO)
 - As the student is performing pre-op teaching, patient responses can include:
 - Act distracted.

- Ask questions about surgery and demonstrate non-interest in the heart pillow or incentive spirometer at this time.
 - Ask for the chaplain and his wife (if people available to role play the parts).
- Possible Facilitator Questions
 - How will you prioritize the new orders? Why? (Then guide them to correct prioritization according to his condition.)
 - Discuss side effects of Nitroglycerin IV and how to titrate it appropriately.
 - Discuss possible causes of the elevated pre-op glucose and how it should be managed with the insulin infusion.
 - Discuss rationale for other pre-op orders
 - Ask students to describe the CABG procedure
- Tabbed iPad Prompts & Content Changes

ORDERS

		Orders
Patient Name: Michael I. Milbourn DOB:09/18/19XX Weight(kg):115 MR#: 1720 Provider: Dr. Bernard Allergies: NKDA		
Date	Time	Order
Today	15 minutes ago	CK-MB, Troponin, CBC, Electrolytes, BUN, Creatinine, Glucose, Magnesium, INR, PTT STAT
		12 lead ECG STAT and notify provider of results
		Chewable non-enteric coated aspirin 325 mg PO STAT
		If O2 sat < 94%, start O2 via NC at 4 L and titrate prn
		Nitroglycerin 0.4 mg Sublingually q 5 mins for 3 doses PRN for chest pain
		IV with 0.9%NS at TKO rate
		----- Dr. Bernard, M.D.
Today	10 minutes ago	Cardiology consult STAT
		Continuous cardiac monitoring and oximetry.
		----- Dr. Bernard, M.D.
Today	Now	Prepare for Multivessel Coronary Artery Bypass Grafting
		<u>Surgical Pre-Operative Order Set: Adult Cardiac Surgery</u> <ul style="list-style-type: none"> • Informed consent • Resuscitation Status: Full resuscitation • Vital signs q 15 minutes • Notify MD/PA if greater than 30 mm difference in the blood pressure between the arms • Call Anesthesia if glucose less than 90 or greater than 180 • NPO

		<ul style="list-style-type: none"> ● Order Heart Teaching pillow and instruct on how to support sternum ● Surgical prep: complete hair clipping and apply surgical wash to axilla, groin and surgical sites after hair clipping ● Remove all jewelry ● Urinary catheter continuous, Indication: Peri-op Management ● Initiate CV Surgery Insulin Infusion order if pre-op blood sugar is greater than 140 ● Page chaplain ASAP to notify of surgery date/time ● If patient is on a beta blocker, confirm patient took AM dose. IF patient did not take AM beta blocker, contact provider for orders ● Incentive spirometry: Instruct patient and record maximum IS effort ● Labs: Hemoglobin A1C, Type and screen ● Chest Xray ● Medications: <ul style="list-style-type: none"> ○ Mupirocin topical (Bactroban 2% nasal ointment), one-half tube, both nostrils ○ Cefazolin (Ancef):give within 60 minutes or less prior to incision <ul style="list-style-type: none"> ■ 1 gram for patients weighing 60 kg or less ■ 2 grams for patients weighing 60.1 – 119.9 kg ■ 3 grams for patients weighing 120 kg or greater
		<p>Nitroglycerin continuous intravenous infusion. Start at 5 mcg/min and increase by 5 mcg every 5 minutes up to 20 mcg/min until response noted while maintaining SBP > 100</p>
		<p>Morphine 2 mg IV every 5 minutes PRN new onset severe pain. Notify provider after first dose given.</p>

		<p><u>CV Surgery Insulin Infusion order set</u></p> <ul style="list-style-type: none"> • Initiate if pre-op blood sugar is > 140 • While on insulin drip: <ul style="list-style-type: none"> ◦ Obtain bedside fingerstick glucose q1 hour ◦ Obtain electrolytes q 2hours ◦ Measure urine output q 1 hour ◦ NPO • Regular Insulin 100 units in 100 ml NS • <u>Glucose level Insulin drip rate</u> <u>units/hr</u> <ul style="list-style-type: none"> ◦ 140-199 1 ◦ 200-299 2 ◦ 300-399 3 ◦ 400-499 4 ◦ >500 5 and call provider
		----- Dr. Forssmann, M.D.

Continue >

MAR

Facilitator Note: Students may click on each underlined medication for a hyperlink with medication information provided by National Library of Medicine.

MAR		
Patient Name: Michael I. Milbourn DOB:09/18/19XX Weight(kg):115 MR#: 1720 Provider: Dr. Bernard Allergies: NKDA		
Order	Sch. Time	Dose
Chewable non-enteric coated <u>aspirin</u> 81 mg four tabs PO STAT	Given by EMS	
<u>Nitroglycerin</u> 0.4mg sublingually q5 minutes for 3 doses prn for chest pain	3 doses taken before arrival	
0.9% NS at TKO rate		
<u>Nitroglycerin</u> IV infusion. Start at 5 mcg/min. Increase by 5 mcg every 5 minutes, up to 20 mcg/min, until response noted while maintaining SBP > 100		
<u>Morphine</u> 2 mg IV every 5 minutes prn		
<u>Mupirocin</u> topical (Bactroban 2% nasal ointment), one-half tube, both nostrils		
<u>Cefazolin</u> (Ancef): give within 60 minutes or less prior to incision <ul style="list-style-type: none"> • 1 gram for patients weighing 60 kg or less • 2 grams for patients weighing 60.1 - 119.9 kg 		

- 3 grams for patients weighing 120 kg or greater

Regular Insulin Infusion 100 units in 100 ml NS prn for pre-op blood sugar > 140
Glucose level Insulin drip rate units/hr

Glucose Level	Insulin drip rate units/hr
140-199	1
200-299	2
300-399	3
400-499	4
>500	5 and call provider

Continue >

PROGRESS NOTES

☰

Progress Notes

Patient Name: Michael I. Milbourn
DOB:09/18/19XX MR#: 1720

Progress Notes

Date & Time	Note
<p>Today - Now</p> <p>Cardiologist Consult</p>	<p>Patient presented to ER via ambulance complaining of chest pain after having already taken Nitroglycerin sublingual x 3. STAT ECG demonstrates T wave inversion. This patient is well known to me. A coronary angiogram was completed last week which demonstrated multiple blockages in LAD and RAD and a CABG was recommended. Michael had previously elected to schedule the surgery for next week due to family commitments. Plan: Prepare patient for multivessel coronary artery bypass STAT. Medically manage chest pain with IV Nitroglycerin titrated to condition and IV Morphine prn until surgery. ----- -----Dr. Forssmann, MD.</p>

Continue >

INFORMED CONSENT



Informed Consent



Consent Form

AUGMENTED REALITY INTEGRATED SIMULATION EDUCATION

1. I consent to, authorize and direct Dr. Forsmann (my physician) and his/her chosen associates or assistants to perform the following procedures(s) on me Multivessel Coronary Artery Bypass Surgery and to do such other procedures as are in their professional judgment, necessary and desirable, including but not limited to procedures involving pathology, radiology and anesthesia. I understand that it is or may be foreseeable that during the course of the surgical or other procedure, unanticipated conditions may be revealed that require an extension of the original procedure and therefore, I consent to and authorize my physician and his/her associates to remedy conditions that are not known at the time the procedure is commenced, but are necessary in his/her professional judgment to remedy.
2. The procedure discussed above, and its risks and benefits have been fully explained to me and I understand its nature and consequences. I understand the risk of complications, including failure, and that serious injury or even death may result from both known and unknown causes during the procedure(s). My physician has explained to me and discussed available alternate viable modes of treatment, their benefits and risks, and possible effectiveness. No guarantee or assurance has been given to me by anyone as to the results that may be obtained, but the likely result of no treatment have been explained to me.
3. I consent to, authorize and request the administration of such anesthetic or anesthesia that is deemed suitable by my physician/surgeon/anesthesiologists, for the procedure(s) described above.
4. My physician has discussed with me the likelihood of needing a blood transfusion during the surgical procedure and post-procedural period. *If the likelihood is present that I will need blood, please continue. If it is unlikely I will need blood, go to #8.* My physician has explained to me the risks and benefits of receiving blood, and the viable medical alternatives and their risks and benefits. Blood components have been tested by a variety of methods for the presence of infectious agents. However, a risk of disease transmission through blood and blood product transfusion still exists. Potential infectious diseases transmitted through transfusion of blood and blood products are, but are not limited to, hepatitis, an inflammatory infection of the liver, and HIV, the virus that causes AIDS.
5. If the likelihood is present that I may require a blood transfusion, I indicate my wishes regarding a blood transfusion by marking Yes or No below:
 - i. Yes, I consent to receive blood products.
 - ii. I have arranged for an autologous transfusion
 - iii. I have arranged for an autologous transfusion, but consent to receive nonautologous blood products if necessary
6. I have had sufficient opportunity to discuss my condition and treatment with my physician, and his/her associates, and all of my questions have been answered to my satisfaction. I believe I have adequate information on which to base an informed consent to the procedure(s).

 Signature of patient or authorized person

 Relationship

 Witness

 Date/Time

EXIT

An “Exit” tab automatically appears after **QR Code: Nitro IV**, **QR Code: Regular Insulin IV**, and **QR Code: Mupirocin** are scanned.

- When the Exit tab is tapped, the iPad reads, ““Are you sure you have completed the simulation? When you exit, all iPad progress is lost.”
 - If “No” is selected, the iPad automatically returns to the tabbed content area.
 - If “Yes” is selected, the iPad will let the student(s) exit and prompt them to complete an embedded 3-5 minute survey.

DEBRIEF

Nothing needed from the iPad.

QUESTIONS

1. How did you feel this scenario went?
2. Review understanding of learning objectives: Administer cardiovascular system drugs safely
 - a. Explain how you titrated Nitroglycerin IV for Mr. Milbourn. What did you monitor? If you could “do over,” if there anything you would change?
3. Review understanding of learning objectives: Interpret cardiac-related lab results
 - a. What cardiac labs indicated that Mr. Milbourn was having an MI?
 - b. What is the difference between a STEMI and a NSTEMI? How does this difference impact your nursing care?
4. Review understanding of learning objectives: Prioritize nursing care for a male patient with worsening chest pain and a non-STEMI
 - a. Your initial orders included: oxygen, aspirin, Nitroglycerin, lab work and an ECG. How should these orders be prioritized?
5. Review understanding of learning objectives: Communicate therapeutically with a patient experiencing an acute health care crisis
 - a. How did Mr. Milbourn react to the news he was having a “heart attack?” Is this a common reaction of patients?
 - b. How did you respond therapeutically to his concerns? Was it effective?
 - c. If you could “do over,” is there anything you would change about your interaction with Mr. Milbourn?
6. Review understanding of learning objectives: Implement pre-op orders for coronary artery bypass surgery.
 - a. Several pre-op orders were received by the cardiologist (if possible, display a copy of the orders.)
 - b. How did you prioritize the orders?
 - c. Can you delegate any of these orders?
 - d. What other resources could you call for assistance in an emergent situation?

- e. What are some reasons for Mr. Milbourn's blood sugar being elevated?
 - f. How did you manage his insulin drip?
 - g. Review IV compatibilities: which medications could be administered using the same IV line?
 - h. Were you surprised by any of the pre-op orders? Do you have any remaining questions about the rationale for the pre-op orders?
7. Review understanding of learning objectives: Report complete, accurate, and pertinent information to the health care team
- a. Did you have to call the provider during this scenario? How did it go? Is there anything you would change if you could "do over?"
 - b. As a group, create a "best response" SBAR handoff report that you would provide to the OR nurse about Mr. Milbourn.
8. Tie the scenario back to the nursing process in a large group discussion. Concept mapping can be used to facilitate discussion.
- a. Identify priority nursing problems you identified for Mr. Milbourn.
 - b. Create a patient centered goal for each nursing problem you identified.
 - c. Discuss potential focused assessments for each nursing problem.
 - d. Discuss priority nursing interventions for each nursing diagnosis.
 - e. Re-evaluate the simulation in terms of the nursing process; what was actually accomplished? What could be improved in the future?
9. Summary/Take Away Points
- a. "Today you cared for a male patient who presented to the ED with worsening chest pain. You titrated Nitroglycerin IV and prepared the patient for emergent CABG surgery. What is one thing you learned from participating in this scenario that you will take with you into your nursing practice?" (Each student must share something different from what the others' share.)

NOTE: Debriefing technique is based on INASCL Standards for Debriefing and NLN Theory-Based Debriefing by Dreifuerst.

SURVEY

Print this page and provide to students.

Students, please complete a brief (2-3 minute) survey regarding your experience with this ARISE simulation. There are two options:

1. Use QR Code: Survey
 - a. Note: You will need to download a QR Code reader/scanner onto your own device (smartphone or tablet). There are multiple free scanner apps available for both Android and Apple devices from the app store.
 - b. This QR Code will not work in the ARIS app.



2. Copy and paste the following survey link into your browser.
 - a. https://ircvtc.co1.qualtrics.com/SE/?SID=SV_6Mwfv98ShBfRnBX

CREDITS

ECG from ecgpedia. Downloaded from: <http://en.ecgpedia.org/wiki/File:DVA1995.jpg>

Medication information from DailyMed, U.S. Library of Medicine. Downloaded from <https://dailymed.nlm.nih.gov/dailymed/index.cfm>

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