

Firelands Regional Medical Center School of Nursing  
AMSN 2023  
Comprehensive Simulation: STEMI scenario

**Patient: Nicky Heartbreaker DOB: 1/1/59**

- Nicky is a 64-year old male who developed diaphoresis and mid-sternal chest pain at 10/10 this morning while at work. He drove himself to the local Emergency Department.
- Past medical history: HTN, Hyperlipidemia, DM Type II, Smokes 1 ppd; Noncompliance; Family History CAD; Erectile dysfunction.
- Social history: Divorced, 2 adult children, 3 grandchildren, rents apartment, factory laborer
- **Home medications:** (patient has not refilled the first three medications and has not taken since beginning of April)
  - Atorvastatin 20 mg po QHS
  - Metformin 500 mg PO BID
  - Enalapril 10 mg PO BID
  - Sildenafil 25 mg PO Daily PRN
- Weight: 90kg
- Allergies: Contrast Dye

**Emergency Department**

- Vital Signs: T- 98<sup>0</sup> F (oral); HR-55; RR-18; BP 80/60; SpO2-92%. Weight: 90kg
- A 12-Lead ECG was done which showed ST elevation in Leads II, III, and aVF. He was started on O2 2L per NC, and 2- 18-gauge IV's were started. Fast patches placed.

**Diagnosis: \_\_\_\_\_Inferior\_\_\_\_\_ STEMI**

- He was given the following: four- ASA 81 mg tablets (chewed), three- 0.4 mg SL NTG (has not taken Sildenafil within last 24 hours), Brilinta loading dose (180 mg), Morphine Sulfate 4 mg IV, a Heparin bolus and started on a drip per protocol, and an IV bolus of 2,000 mL of NS.
- The time between his arrival to the Emergency Department and arrival to the Cardiac Cath Lab was 30 minutes.

### **Cardiac Catheterization Lab**

- Procedure: Left Heart Catheterization with PTCA to:   RCA    
Right radial:                    TR Band
- 2 drug eluting stents
- Medications:
  - Versed 2 mg IV
  - Fentanyl 50 mcg IV
  - Bivalirudin (Angiomax): Supply 250 mg in 50 mL NS
    - Bolus: 0.75 mg/kg (90 kg X 0.75 mg = 67.5 mg/250 mg X 50 = 13.5 mL)
    - Drip: 1.75 mg/kg/hr (90 X 1.75= 157.5 mg/hr/250 mg X 50= 31.5 mL/hr)
  - Verapamil 5 mg IV
  - Diphenhydramine 50 mg IV
  - Solumedrol 125 mg IV
  - Famotidine 20 mg IV
- TRB band placed
- Stent card placed in chart

### **4C**

- He has just arrived to 4C from the Cath Lab.
- Vital signs: T- 98.9<sup>O</sup> F (oral); BP 108/56; HR- 118; RR- 24; SpO2- 91% on 2L NC
- You performed a 12-Lead ECG with the following findings:   A-fib
- Present condition: Chest pain free currently; complaint of fatigue & dyspnea; crackles present; low back pain 3/10; EF 35%
- Ecchymosis at right radial site; TR Band in place
- Medications: All but the IV fluid are medications the patient will also be prescribed at discharge
  - ASA 81 mg PO Daily
  - Brilinta 90 mg PO BID
  - Atorvastatin 40 mg PO QHS
  - Metformin 500 mg PO BID- Hold for 48 hours
  - Enalapril 10 mg PO BID
  - Acetaminophen 500 mg PO Q 4-6 hours PRN non-cardiac pain
  - D5 0.45 NS at 80 mL/hr- slowed this due to probable HF and fluid overload

### **1-hour post simulation assignment and survey: due April 24, 2023 at 1600**

Discharge Education: A copy of this document is on Edvance360 under Simulation Resources- use this electronic version to complete and submit the assignment.

Firelands Regional Medical Center School of Nursing  
 AMSN 2023: Comprehensive Simulation  
**Discharge Education** (1H-Sim)



**Directions:** For **each** education topic, include specific information you would provide to Nicky Heartbreaker at discharge. The information must be specific to the patient, scenario, social determinants of health concerns, and be thorough and detailed (this will not be a brief list). Include handouts, video links, pictures, etc. that you could present for **at least 4** of the education topics. This assignment is due in the Comprehensive Simulation dropbox on Edvance360 at **1600 on April 24, 2023 (along with the simulation survey)**. If the assignment is late or not completed in full it will result in 1-hour missed simulation time, and will have to be completed prior to beginning the final exam on 4/28/2023 at 0800.

Topic	Education
<b>Diagnosis</b>	<p>Inferior MI. You had a heart attack. This means the blood flow to your heart was blocked. When this blood flow was blocked, your heart was not able to beat like it was supposed to. The rest of your body was not receiving the blood and oxygen that it needed. You experienced the pain in your chest due to the heart not beating as it should. You went in for a procedure to fix the problem. You had two heart stents placed in your right coronary artery. That is the blood vessels on the outside of your heart. These stents are little mesh pieces that will keep that blood vessel from getting blocked again. After the procedure you experienced a complication. It is something called atrial fibrillation. This was where the atria or the top part of your heart was not pumping as it should. This was caused by your heart attempting to pump normally as it should. This is resolved now and should not be a problem for you. In terms of your heart attack, there are some steps you can take that I have outlined down below. The first thing is taking your medications as you should. You also need to be compliant with all follow up visits. You need to eat a heart healthy diet or DASH diet. You need to reduce your stress. You need to stop smoking or reduce your smoking. Limit your sodium intake. Make sure you are getting enough rest and exercising at least 30 minutes a day 5 days a week. I will go over all of this in the next sections.</p>
<b>Medications</b>	<p>The doctor prescribed the following medications in addition to the medications you were already taking. These medications need to be taken every day. Compliance is key to preventing the heart attack from happening again. If you are having trouble with getting medications we can discuss with the doctor or pharmacist cheaper more cost effective options. Sometimes the pharmacy will give generic over name brand. If you are going to have trouble getting your</p>

	<p>medications, reach out to your doctors office so that a plan can be established so that you can get the medications you need. Let's list the medications you will be taking.</p> <ul style="list-style-type: none"> <li>• Aspirin 81 mg by mouth daily. Aspirin is available over the counter. It is sometimes called "Baby Aspirin". It helps to make sure your blood does not stick together and cause a clot. The clot can increase your risk for a heart attack or even a stroke.</li> <li>• Brilinta 90 mg by mouth twice a day. This is also called the generic name of Ticagrelor. This is a blood thinner that helps prevent stroke. With both aspirin and Brilinta, they can put a patient at risk for bruising and bleeding more easily. This means it will take longer to stop bleeding if the patient were to cut themselves. This is something they need to monitor. If they are bleeding unusually or excessively, the health care provider needs to be made aware. The Brilinta also can cause shortness of breath. This needs to be reported to the provider.</li> <li>• Atorvastatin 40 mg by mouth before bed. This medication the patient should already be familiar with. However, this medication is used to lower your cholesterol. By lowering cholesterol, this can reduce the risk of a heart attack. The patient may experience muscle pain or weakness. They could experience fever. If this occurs, it needs to be reported to the healthcare provider.</li> <li>• Metformin 500 mg by mouth twice a day. This medication will be held for 48 hours. It can be taken in two days time. This is because it is hard on the kidneys. The patient also had contrast dye from the heart catheterization which is also hard on the kidneys. This medication is taken to control the patient's type two diabetes. The patient needs to have regular blood sugar monitoring and labs to make sure that his diabetes is regularly controlled with this medication.</li> <li>• Enalapril 10 mg by mouth twice a day. This medication is used to help lower high blood pressure. Lowering high blood pressure will help reduce the risk of heart attack and or stroke. This medication may cause dizziness.</li> <li>• Acetaminophen 500 mg by mouth every 4-6 hours for pain that is not cardiac related. Meaning pain that is not in the chest. Chest pain needs to be reported and EMS may need to be called. The patient needs to monitor how much of this they are taking and how often. It can cause liver toxicity if taking over 4,000 mg in 24 hours.</li> <li>• Sildenafil 25 mg by mouth PRN. This is part of the patient's home medication taken for ED. I would double check how the patient takes this medication and make sure he is taking it correctly.</li> </ul>
<p><b>Follow-up/ Compliance</b></p>	<p>You need to make sure you are taking your medications as prescribed. These are listed above for you. Take them as prescribed by the provider daily. If you miss a dose, call the doctor to see how they would like you to proceed. If you are having trouble with the cost of medications, we can follow up with case management and pharmacy to see if there are any ways to reduce the cost. Sometimes even switching from name brand to generic will cut cost. In addition you need to make</p>

	<p>sure you are going to your doctors appointment. Since you were hospitalized, your primary care provider is going to want to follow up with you in the next few days. You will need to see a cardiologist as well. This is a doctor to make sure your heart is doing what it needs to do and there are no further complications. If you need help with transportation we can arrange something with you or your family to make sure you are getting to these appointments and getting the follow up care you need. Compliance is extremely important. Taking your medications, going to your appointments, eating a healthy diet, exercising are all things you need to be doing to keeping yourself healthy. You do not want further complications or conditions to arise because you are not being compliant. It puts you at risk for another heart attack as well.</p>
<p><b>Puncture site care</b></p>	<p>We have been reducing the air on your “TR Band” every 15 minutes until it can be deflated. This was keeping pressure on the site where they went in to look at your heart and perform the procedure. Once this band is removed there are still some things we want to do. We want to monitor for signs of infection. This will include fever, chills, redness, or pain at that site. If you notice these, report them to the provider. The dressing under there should be removed in 24 hours. You can shower with the dressing on but no baths. We do not want to submerge your puncture site. Please go easy for the next few days. You want to avoid heavy lifting, typing and repetitive movements of your wrist for the first 24 hours. This will prevent further injury and damage to the site. Monitor for signs of bleeding or bruising. You had some slight bruising right after your procedure. This is normal. But we want to monitor to make sure it is not worsening. You also want to monitor to make sure it is not bleeding. If you see it bleeding apply immediate pressure and call your provider.</p>
<p><b>Diet</b></p>	<p>The doctor is prescribing a heart healthy diet also known as the “Dash Diet” . This is a diet in which you are eating fruits and vegetables. You want to eat fresh fruit and vegetables. You want to avoid canned this can be high in sodium for vegetables and sugar for fruit. You want to eat whole grains such as whole wheat bread, brown rice. You want to eat beans. But avoid canned baked beans or other canned beans. These are high in sodium. You want to use vegetables such as olive or flax seed oil to cook with. Nuts and seeds are also good. But make sure you are getting the kind that are labeled “unsalted” because the salted ones are not restricting your sodium intake. You want to eat fat free or low fat milk, cheese or other dairy. You want to eat grilled or baked fish or poultry. You want to avoid fried. It is full of fat, sodium and grease which will not help keep your heart healthy. You want to avoid fatty meats such as bacon, ham, sausage. Refined sugars such as soda or sweets. You also want to limit sodium. To season foods, use pepper, or salt free seasonings such as “Mrs. Dash”. Included below is a list of foods to include and a list of foods to avoid.  <a href="https://www.nhlbi.nih.gov/education/dash-eating-plan">https://www.nhlbi.nih.gov/education/dash-eating-plan</a></p>

	<div style="text-align: center; background-color: #800040; color: white; padding: 5px; font-weight: bold;">DASH Eating Plan</div> <p><b>The Benefits:</b> Lowers blood pressure &amp; LDL "bad" cholesterol.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center; width: 50%;"> Eat This</th> <th style="text-align: center; width: 50%;"> Limit This</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;"> Vegetables</td> <td style="text-align: center;"> Fatty meats</td> </tr> <tr> <td style="text-align: center;"> Fruits</td> <td style="text-align: center;"> Full-fat dairy</td> </tr> <tr> <td style="text-align: center;"> Whole grains</td> <td style="text-align: center;"> Sugar sweetened beverages</td> </tr> <tr> <td style="text-align: center;"> Fat-free or low-fat dairy</td> <td style="text-align: center;"> Sweets</td> </tr> <tr> <td style="text-align: center;"> Fish</td> <td style="text-align: center;"> Sodium intake</td> </tr> <tr> <td style="text-align: center;"> Poultry</td> <td></td> </tr> <tr> <td style="text-align: center;"> Beans</td> <td></td> </tr> <tr> <td style="text-align: center;"> Nuts &amp; seeds</td> <td></td> </tr> <tr> <td style="text-align: center;"> Vegetable oils</td> <td></td> </tr> </tbody> </table> <p style="text-align: center;"><a href="http://www.nhlbi.nih.gov/DASH">www.nhlbi.nih.gov/DASH</a></p> <div style="text-align: center; background-color: #008080; color: white; padding: 5px;"> <small>National Heart, Lung, and Blood Institute</small> <small>Heart Foundation</small> </div>	Eat This	Limit This	Vegetables	Fatty meats	Fruits	Full-fat dairy	Whole grains	Sugar sweetened beverages	Fat-free or low-fat dairy	Sweets	Fish	Sodium intake	Poultry		Beans		Nuts & seeds		Vegetable oils	
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<p><b>Exercise/Activity</b></p>	<p>Exercise and activity is extremely important for your health. It can help control your blood pressure, and control your diabetes. It can also help reduce your stress and increase your energy levels. You can do some type of healthy activity you enjoy. This includes walking, running, swimming, riding a bike. You need to do these exercises such as walking for at least 30 minutes a day 5 days a week. This will help not only keep your heart healthy and pumping but it also keeps the rest of you healthy as well. You do not have to join a gym to exercise or increase your activity. You can walk outside. Since summer is quickly approaching, you can always check out the Metro Parks or even the beach! Just be sure not to overdo it and wear sunscreen when going outdoors/ drinking enough water. Eat a healthy snack before you exercise such as fruit and peanut butter, a granola bar, nuts, crackers or string cheese.</p>																				
<p><b>Smoking cessation</b></p>	<p>As we talked about throughout your stay with us you need to quit smoking or at least cut back. Smoking constricts your blood vessels. This means they get all tight and the blood cannot go where it needs to in your body. This makes your blood pressure higher and puts you at greater risk for another heart attack or other heart problems. Below is a handout from the Heart Foundation that gives you some facts about what happens to your heart when you stop smoking. Quitting smoking will lower your risk of heart attack but a lot of other health problems too. It will help you live longer and spend more time with your kids and grandkids.</p> <p><a href="https://www.healthnavigator.org.nz/healthy-living/s/smoking-why-quit/">https://www.healthnavigator.org.nz/healthy-living/s/smoking-why-quit/</a></p>																				

	<div style="background-color: #c00000; color: white; padding: 5px;"> <h2 style="margin: 0;">Smoking</h2> <p style="font-size: small; margin: 0;">A risk factor for heart attack and stroke</p> </div> <div style="text-align: right; margin-top: -10px;">  </div> <p style="margin-top: 10px;">Becoming smokefree is the best thing you can do for your heart.</p> <p><b>THE BENEFITS OF BEING SMOKEFREE START IMMEDIATELY.</b></p> <p><b>AFTER...</b></p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>Your blood pressure starts to <b>lower</b></p> </div> <div style="text-align: center;">  <p>It is easier for your heart to pump blood</p> </div> </div> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="text-align: center;"> <p><b>1 YEAR</b></p> <p>Your risk of heart attack falls to <math>\frac{1}{2}</math> that of someone who smokes</p> </div> <div style="text-align: center;"> <p><b>1/2</b></p> </div> <div style="text-align: center;"> <p><b>5-15 YEARS</b></p> <p>Your risk of heart attack drops to that of someone who has <b>NEVER</b> smoked</p> </div> </div> <div style="background-color: #fff9c4; padding: 5px; margin-top: 10px; text-align: center; font-size: small;"> <p>Talk to your doctor, nurse or pharmacist about options to help you quit.</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>Call Quitline 0800 778 778 or text 4006</p> </div> <div style="text-align: center;">  <p>One-on-one or group support programme</p> </div> <div style="text-align: center;">  <p>Patches, lozenges and/or gum</p> </div> <div style="text-align: center;">  <p>Medications</p> </div> </div> <p style="font-size: x-small; margin-top: 5px;">HHC-PO-SM-ENG-20-VI</p> </div>
<p><b>Signs and symptoms to report/Seek medical care</b></p>	<p><a href="https://www.youtube.com/watch?v=msnxCq62PMQ">https://www.youtube.com/watch?v=msnxCq62PMQ</a></p> <p>If you experience these signs and symptoms you need to report to you provider and come to the hospital IMMEDIATELY. DO NOT WAIT!!</p> <ol style="list-style-type: none"> <li>1. Chest Pain- any feeling of chest discomfort need to be reported.</li> <li>2. Palpitations – the feeling of your heart racing, fluttering, or just feeling differently.</li> <li>3. Nausea/vomiting need to be reported. This is the feeling of you are going to throw up or throwing up.</li> <li>4. Numbness and tingling in your arms and legs. With your Type 2 Diabetes you said you experienced some tingling in your legs and feet. Please come in and be seen if you are experiencing new symptoms of this somewhere else OR it is getting worse.</li> <li>5. Sweating or chills- If you are experiencing unexplained chills or sweating come in to be seen.</li> <li>Shortness of breath- if you feel like you cannot breathe or are having difficulty breathing.</li> <li>6. Pain – If you are experiencing pain in your jaw or anywhere else such as your shoulder.</li> <li>7. Dizziness – If you feel like you are dizzy or light headed at any point in time. This should be reported to your provider.</li> <li>8. Unexplained weight gain- If you experience a gain of 2 pounds in a day or 5 pounds in a week, please talk to your provider. Make sure when you do weigh yourself use the same scale, at the same time each day, and in similar</li> </ol>

