

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- 98⁰ 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: ___Right coronary artery_____
- 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: $0.75 \text{ mg/kg} (90 \text{ kg} \times 0.75 \text{ mg} = 67.5 \text{ mg}/250 \text{ mg} \times 50 = 13.5 \text{ mL})$
 - Drip: $1.75 \text{ mg/kg/hr} (90 \times 1.75 = 157.5 \text{ mg/hr}/250 \text{ mg} \times 50 = 31.5 \text{ mL/hr})$
 - 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^O 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 with RVR_____
- 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)



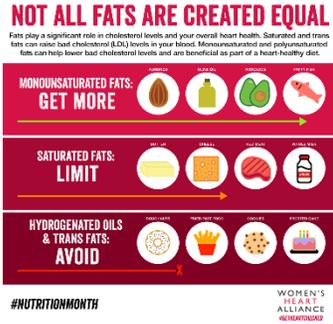
Directions: For **each** education topic, include specific information you would provide to Nicky Heartbreaker at discharge. The information must be specific to the patient, scenario, social determinants of health concerns, and be thorough and detailed (this will not be a brief list). Include handouts, 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
Diagnosis	<p>You were diagnosed with left ventricular systolic heart failure. This is where the heart is unable to effectively pump blood through the left ventricles. The ejection fraction tells us how much blood is pumped with each heartbeat, and should be between 55-65%. Yours was showing to be at about 35%. This means that fluid is getting backed up, especially in the lungs, which can cause shortness of breath. You want to watch for an increase in shortness of breath and report it to your provider right away. Right sided heart failure is common after left sided heart failure as well. Therefore, you would want to monitor daily weights and report a weight gain of 3 pounds in 2 days or 3-5 pounds over a week to your doctor. You also want to watch for swelling of the extremities, especially the legs. You are at a higher risk for heart failure due to your diabetes, HTN and smoking. Overall, it is important to remain compliant with your medications and make some lifestyle changes that we will discuss momentarily.</p> <p>Here is a short video that can explain heart failure quickly: https://www.nhlbi.nih.gov/health/heart-failure/causes</p>
Medications	<p>Aspirin- This medication is used to prevent blood clots. Watch for signs of toxic levels including headache, tinnitus and mental confusion. This medication should be taken with a full glass of water, and you should remain upright for about 30 minutes after taking this medication. It is important not to drink alcohol with this medication as it can cause GI upset.</p> <p>Brilinta- You should take this medication exactly as your doctor has prescribed it. You</p>

	<p>should not double dose when you miss one, but should take it as soon as you remember. This medication should not be discontinued abruptly. This medication can make it easier for you to bleed, so make sure you monitor for signs of bleeding. I think it is important that you know to contact your provider if you experience severe shortness of breath.</p> <p>Atorvastatin- This medication can help to lower cholesterol, but you should also implement a few diet restrictions as well as exercise for the best results. It is important that you notify your PCP if you get unwarranted muscle weakness or pain or right upper abdominal discomfort.</p> <p>Metformin- Similarly to the atorvastatin, this medication can help to control diabetes, but it should be used in combination with diet and exercise changes. You should take this medication at the same time each day. This is a long term therapy that CONTROLS diabetes and is not a cure all. If you become hypoglycemic while taking this medication, drink about 4 ounces of orange juice and recheck within 15 minutes and repeat if your blood sugar does not go up. If it is still low after this, you should seek medical attention. You may have a metallic taste in your mouth while taking metformin, this is a common side effect. You should keep a form of sugar with you at all times in case your sugar was to drop.</p> <p>Enalapril- This medication can help to manage heart failure. This should be taken at the same time each day. Patients should avoid foods and salt substitutes high in potassium and sodium. They should also change positions slowly as this medication can lower the blood pressure. I recommend you avoid driving until you know how this medication will affect you. You should monitor blood sugar more closely as this medication may cause hypoglycemia.</p> <p>Acetaminophen- This can be used to treat pain. It is important you report if you develop a rash while taking this medication. Do not use more than instructed as this can be toxic to the liver. This should not be taken every day, in fact no more than 10 days in a row to avoid liver damage. You should not drink alcohol while taking this medication. Do not take other products that contain acetaminophen while taking this medication. Contact your PCP if you have a fever that will not come down while taking this medication.</p>
<p>Follow-up/ Compliance</p>	<p>It is important that you continue to follow up with your doctor. This helps them to determine the effectiveness of your prescribed medications and whether or not they are working. They are able to change the dosages based upon their assessment findings. Additionally, compliance is very important because if you do not take your medications, you will not see improvement in your symptoms and you will also likely experience a quicker progression of your heart failure. This is not only speaking about medication compliance, but diet, exercise and smoking cessation as well.</p>
<p>Puncture site care</p>	<p>With the use of the radial artery for you PCI, it is important that you do not lift any heavy objects within a 24-hour period as this can cause bleeding. If you notice bleeding or a hematoma forming at the puncture site, it is important that you apply pressure to the area and call your doctor. The dressing can be removed within one day of discharge; however, it should be replaced with a Band-Aid until it is fully healed. You want to be sure the site is clean and dry as well. You can shower, but avoid submerging the site for a few days.</p>

Diet

There are a few things I would recommend in your diet to decrease your chances of having another cardiac event. The first thing I want to recommend is that you stay below 2 grams of sodium, preferably even below 1.5. Sodium increases the retention of fluid, which will make it more difficult for you to breathe. Therefore, decreasing the amount of sodium you take in can help to reduce fluid retention. You should not add extra salt to meals. Another thing I recommend is to decrease your consumption of fatty foods. This reduces the chances of a buildup of plaque. Finally, I would try and watch the amount of fluid you intake. The more fluid in the body, the harder the heart will have to work. Currently, there is no need for a fluid restriction, but you should continue to be mindful.



This photo gives a good overview of fats and how much you should be consuming.



This photo shows some low sodium foods that you can incorporate into your diet.

Exercise/Activity

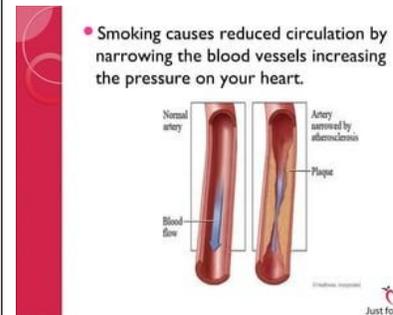
Exercise is an important activity to keep the heart muscle healthy. For a patient such as yourself, I would recommend trying to get 30 minutes of moderate exercise, such as walking, most days of the week. This can improve circulation and perfusion to the body's tissues. The main thing is to start slowly, when you feel like you have started to increase your work of breathing, then you should stay at that pace. It is important to remember to ask your doctor before participating in any type of physical activity to ensure that you are not at risk of injuring yourself. You may also benefit from cardiac rehab, in which you will be supervised. This might be beneficial as a starting point. Something that might be of benefit to you

is that exercising can help to reduce and improve symptoms you may be having, which can improve how you are feeling as well as your overall mood.

The link provided below shows a video explaining some of the benefits of exercise to those with heart failure:
<https://my.clevelandclinic.org/departments/heart/patient-education/recovery-care/heart-failure/exercise-activity>

Smoking cessation

Another thing that is important for you to do is to quit smoking. Smoking causes the vessels to vasoconstrict, which makes it harder for blood to flow through them. It is very likely that smoking is a contributing factor to your hypertension. Smoking increases the amount of bad cholesterol in your body, which increases the chances of plaque occluding the arteries. This can contribute to even narrower blood vessels and higher blood pressure, which puts you at a higher risk for another heart attack. The good news is, if you quit smoking, you can reduce the incidence of having heart related complications. You can also reduce the chance of lung disease.



As you can see in this picture, the blood vessels become narrower due to vasoconstriction and plaque in the arteries. You can see here that the space for blood to travel is very small, which increases the chances of a clot.

Signs and symptoms to report/Seek medical care

I know I have mentioned some of this above, but I just want to reiterate the information to make sure you have an adequate understanding. You should contact your provider if you experience a weight gain of 3 pounds in 2 days or 5 pounds within a week. It is also important to contact someone and seek medical attention if you notice a rash on your body since you have a few medications that can cause a rash as a part of a more severe side effect. Increasing shortness of breath and difficulty breathing is another reason to seek medical attention. If you notice swelling in your extremities you should call your physician as this is a manifestation of right sided heart failure, which typically follows left sided heart failure.

Other	One thing I want to add is that you should avoid situations that cause you to have high stress. This is not good for the body or cardiovascular system, especially in someone who already has compromised cardiac output. I also encourage you to seek support via support group so that you can talk about your feelings with other people who might be able to help you and make you feel not alone. If there is anything else you need help with, do not hesitate to reach out to someone, we would love to help.

The electronic version of this document is under Simulation Resources