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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- 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: RCA
Right radial: TRBand
- 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 w/ 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 have been diagnosed with a heart attack (specifically a STEMI to your Right Coronary Artery). This needed emergent intervention so you were taken in for a heart cath immediately to determine the spot of occlusion and place a stent so that your artery would no longer be blocked and blood flow could return to your heart. This was all done successfully. While recovering, you developed something called Heart Failure, and a dysrhythmia of your heart called Atrial Fibrillation. This is something that you were at an increased risk for after having the MI. This just means that your heart is not pumping as effectively as it should be because of the specific rhythm that it is in, and because of the damage that it sustained while being without oxygen during your heart attack. In order to correct these things we will be giving you certain medications that will hopefully put your heart back into a normal rhythm, and when this happens we expect your heart to beat more appropriately. This appropriate pumping along with medications to ensure adequate contraction of the cardiac muscles will stop the heart failure and eliminate some of those symptoms you are having such as SOB. Luckily we were able to right the wrongs that were happening, but this is something that will take maintenance and compliance by you in order to keep everything in order and ultimately keep you alive. I will be giving you education and resources on how you can change your lifestyle to ensure you get the most out of life, and have many more healthy years of life left to spend with your family.</p> <p>**The American Heart Association has many videos and posters that contain wonderful information about your new diagnosis. Below I will post the link to a video about heart failure symptoms as well as the link to the AHA which contains many many videos and pieces of information that will be beneficial to you to look at on your own time.**</p>

	<p>https://youtu.be/52eMwhf8Ufl ^Video on heart failure symptoms</p> <p>Heart Failure Tools and Resources American Heart Association</p>
<p>Medications</p>	<p>To start with, lets talk about the medications that you were prescribed prior, that you were not taking. These meds are very important, because they control your cholesterol and blood pressure. If those two things are uncontrolled, it increases your risk of having another heart attack. We need to take these medications exactly as prescribed, and do not stop them unless you have been told to do so by your doctor. You are also a type 2 diabetic. It is very important that you keep your blood sugar under control. The more sugar that is flowing through your blood the thicker your blood will be, which again increases the risk for having anther heart attack or even stroke.</p> <p>-Aside from your medications that were previously prescribed, you will be taking more medications to treat the newly acquired conditions you have currently. The rhythm that your heart went into (AFIB) means that the top part of your heart can sometimes flutter. When this happens blood does not travel like it should which puts you at an increased risk for your blood to form little clots (when blood sits still for too long, it clots). In order to prevent this from happening you will need to take a medication to keep your blood thin every day. You will be prescribed Aspirin 81mg chewable every day. To go along with keeping your blood thin you will take Brilinta 90 mg by mouth twice a day (morning and night). These two medications work to thin the blood, but in different ways. It is important that you take both of them as prescribed.</p> <p>-Like I said, the 3 medications previously prescribed will need to be taken as directed also for your blood pressure (enalapril 10mg by mouth twice a day), cholesterol (atorvastatin 40mg by mouth at bedtime), and Metformin (500mg by mouth twice a day). We can get you a pill reminder that allows you to prepare your meds for a week at a time. This makes it easier for you to remember which pills you have taken so far that day, and saves you time throughout the week as well.</p> <p>-If you are having pain that is not cardiac related, of course you can take Acetaminophen (which you may recognize as Tylenol) 500mg by mouth every 4-6 hours.</p> <p>*Again, it is extremely important that you change your lifestyle and become compliant with your medication regimen.</p> <p>**The importance of medication adherence cannot be stressed enough. Below I listed a poster that shows some statistics based on medication non-adherence. Please take these into consideration.</p>
	<p>-After this hospital stay you will be checking in with your primary care physician</p>

<p>Follow-up/ Compliance</p>	<p>and your cardiologist. This is to ensure that you are continuing to improve, and to answer any questions or concerns you may have. You will be given a list of lifestyle changes that you should accommodate, and we will discuss this further in your education. Just like medication compliance, it is imperative that you are compliant in your follow up appointments with your doctors, as well as the lifestyle changes that you need to implement.</p>
<p>Puncture site care</p>	<p>-In order to have your heart cath, a physician must access an arterial site (either radial or femoral) to thread his wire into your heart and release contrast. In your case, your radial artery in your wrist was accessed. This is important to know, because any time an artery is accessed there is a risk for bleeding. Arteries are the vessels responsible for supplying your body with oxygen rich blood, and it moves forcefully throughout the body by the pumps of the heart. Any time there is a hole, or a puncture, in that artery there is a large risk for bleeding and bleeding from an artery can be very dangerous. You must make sure that there is no active bleeding coming from your right wrist where the radial artery was accessed. It will be sore and bruised for a few days and this is normal. However, if you experience any severe pain or bleeding from the puncture site it is important to immediately apply pressure to the wound to stop the bleeding, and contact emergency personnel. You may need to come into the emergency room in order to stop the bleeding, because it is possible that you could lose a significant amount of blood and go into hypovolemic shock and possibly death.</p>
<p>Diet</p>	<p>-According to your lab work, your cholesterol and blood pressure are both elevated. These are two modifiable risk factors to future heart attacks or strokes which means that with lifestyle and diet modification you can decrease these numbers! This is great news. In order to achieve lower BP and Cholesterol it would be a good idea to follow a heart healthy diet. This includes foods such as fruits and vegetables, whole grains, lean poultry and fish like salmon and tuna. It is best to stay away from or moderate foods such as fatty red meat, fried foods, foods high in sugar, full dairy fat products, and sweets. Of course in moderation it is ok to have those foods once in a while. Just remember that you should eat a balanced diet with all of the essential nutrients I listed in order to stay healthy.</p> <p>**I want to include a source of guidance for your healthy diet. At the bottom of this page is a photo of a heart health cookbook I would suggest for ideas on meals and snacks in order to get started. There are many out there that will help you, this is just one example. The amazon link is also posted below.**</p> <p>The Cardiac Recovery Cookbook: Heart Healthy Recipes for Life After Heart Attack or Heart Surgery: Cutlip LN RD, M. Laurel, Greaves RDN, Sari, Kligfield M.D., Paul: 9781578261895: Amazon.com: Books</p>
	<p>-It is important to strengthen the heart muscle, and like any other muscle it needs</p>

<p>Exercise/Activity</p>	<p>exercise to build strength. Your heart just suffered an injury (MI) so it needs time to rest and heal. Keeping that in mind, we still need to build up its strength so we can begin working on minimal exercises that are appropriate for your level of health and then work up from there. Performing any sort of exercise should be done while being closely monitored by your physician. It would be a good idea to keep track of your heart rate during these exercises and if you happen to feel any sort of pain or discomfort in your chest during this, to call 911 and be seen by a physician. When done in moderation and at the appropriate tolerance level, exercise and activity will enable your heart to become healthy and strong.</p>
<p>Smoking cessation</p>	<p>-Smoking a pack per day has grave impacts on your health. It increases your blood pressure, which is the starting point for a lot of ailments that you could develop or have already developed (such as DM, MI). It doesn't only damage your lungs and compromise your tissue perfusion, but it affects every single part of your body. Plus the financial burden that you face keeping up with a PPD smoking habit. Smoking cessation is not easy, however we have resources that are available to you to help you be successful.</p> <p>-First there are nicotine patches that you could use that will satiate your cravings for nicotine. These work wonders for some people and others do not like them. You will not know how you'll react to them unless you give them a shot. These patches would be applied in the morning and worn throughout the day. Some people are ok with wearing the patch over night, however it is best to remove the patch when you go to bed at night and place a new one in the morning.</p> <p>-If you choose to try the gum, the nicotine will also help satiate your cravings however there are some things you need to know. Do not swallow the gum, and if you do contact your provider or poison control immediately. Keep gum out of reach of children at all times. This gum is used as a stepping stone in smoking cessation, so once the cravings stop you should stop taking the gum as well.</p> <p>-There are also support groups that you can join for smoking cessation that I can get you in contact with. It is always a great idea to surround yourself with people who know what you are going through or who are currently looking for the same type of support. I noticed your daughter Chandra stated that she would stop smoking if you would. This sounds like a great opportunity for you two to hold each other accountable and quit smoking together. Remember, it is never too late to stop smoking. No matter what age you are.</p> <p>** Attached to this is a PDF of the Cleveland Clinic Smoking Cessation program. I will paste the link to the website here also, which contains the phone number you can call to set up an appointment. **</p> <p>Doctors That Can Help Me Quit Smoking Cleveland Clinic smoking-cessation-program-brochure.pdf (clevelandclinic.org)</p>
	<p>-There are things that you should be looking out for when it comes to signs and</p>

<p>Signs and symptoms to report/Seek medical care</p>	<p>symptoms of something that needs to be assessed by a physician. When it comes to your medications, it is important to know that you are on blood thinners. This puts you at a large risk for bleeding. You must make sure that your house is clear of clutter or rugs, and anything that you may find yourself tripping over. If you need nightlights in the hallway so that you can see to go to the bathroom in the middle of the night then I suggest you do that right away. Try to limit your fluid intake at night so that you aren't constantly waking up to use the restroom. Frequent restroom breaks throughout the day will keep your bladder and bowels emptying waste. If you do happen to fall and hit your head, contact your provider or go to the emergency room in the event that you have any severe headache or bleeding after a fall.</p> <p>-Because you are on a blood pressure medication there is a chance that at times your blood pressure can become low. If this happens you will notice that you are lightheaded, dizzy, and off balance when going from sitting to standing. If you find that you are having these symptoms it is important that you continue to drink adequate amounts of water and contact your physician. A change in your medication dosage may be required.</p> <p>-With being diabetic of course you will be taking your Metformin as prescribed, but you should also be watching the amount of sugar and carbs you are eating. By doing so you will be giving the metformin the best chances of working the way that it should in your body, and keeping your sugar levels within normal ranges.</p>
<p>Other</p>	<p>-All of this information can be very overwhelming. It is easy to see this list of meds and education topics and want to throw in the towel. Do not do that. We are here to help you understand all of this one step at a time. At first the changes in medication and lifestyle may seem foreign and unnecessary, but after a few weeks it will become second nature and you will be on your way to the best version of yourself.</p> <p>-I know you mentioned that your insurance is not the best. You may qualify for Medicaid which could help with the cost of your medications. I will put you in contact with a case worker who can help you navigate through the insurance options and hopefully set you up with the best health care coverage at the best price.</p> <p>-If the diet modifications seem impossible we can reach out to a nutritionist who can give you lists and resources to set you up with foods that you enjoy but are still healthy for your heart. We want to see you succeed and we believe that with our help, and the help of our resources that are available to you, and your drive to be healthy for your family, that you can and WILL succeed!</p>

THE CARDIAC RECOVERY COOKBOOK



Heart-Healthy Recipes for Life After
Heart Attack or Heart Surgery

M. Laurel Cutlip, R.D., L.N.

with **Sari Budgazad, R.D., C.D.N.**

Foreword by **Paul Kligfield, M.D.**

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MEDICATION NON-ADHERENCE

MEDICATION NON-ADHERENCE RATES



MEDICATION NON-ADHERENCE RESULTS



MEDICATION NON-ADHERENCE REASONS

