

Interprofessional Case Study 001 - Individual and Team Work Up

Setting: acute inpatient

Team leader: Nurse, physician, or case manager

Pharmacy Implications:
Health Condition

Personal Factors: married, national guard, anxiety, does not like meds

Environmental Factors: family support, Medicare/VA insurance

Body function/structure: CAD, hyperlipidemia, HTN, anxiety, severe TMJ

Activities: gardening and playing bridge, motivated

Participation: wife, VFW

Intervention:

- Patient does not like to take meds so I would like to keep him on the least amount of drugs possible while still following EB guidelines and optimize mortality benefit post CABG (aspirin, beta-blocker and statin).
- Due to potential non-adherence, I would want to make sure he has extensive DC counseling on the mortality benefit of these drugs and possible side effects.
- I would also want to make sure that all meds are on his insurance formulary (or VA formulary).
- Finally, due to possible TMJ surgery – which may be a pt priority to improve QOL, I would want to communicate with patient and dentist about use of NSAIDS in combo with aspirin due to bleeding.
- We also discussed today having a full dental workup to address dental/gum disease as a risk factor for coronary artery disease.

Dentistry Implications:
Health Condition

Personal Factors: married

Environmental Factors: family support

Body function/structure: TMJ (surgery work up led to diagnosis of CAD)

Activities: gardening, activities at VFW

Participation: issues with sleep and eating with TMJ

Intervention:

- After completion of cardiac rehab, obtain clearance from cardiologist to undergo general anesthesia for TMJ surgery
- Consult with oral surgeon regarding interruption of aspirin therapy prior to TMJ surgery
- Consult with cardiologist options for TMJ pain control during rehabilitation period
- Patient education regarding regular 6 month cleanings in light of CAD
- The patient needs to be referred to a TMJ specialist for complete evaluation.
- The patient may require muscle relaxants and/or low dose antidepressants (such as Elavil) and significant pain management (NSAIDS). This necessitates consultation with the patient's primary care physician regarding possibility of drug interaction and potential for increased bleeding. Moreover, it would be important to involve the patient's social (case) worker due to the potential of muscle relaxants creating difficulty in operating a vehicle and other functions requiring motor abilities.
- If treatment recommended entails TMJ surgery significant change in diet would necessitate involvement of both the physician and dietician/nutritionist.
- A dental workup and necessary treatment should be completed in conjunction with the TMJ specialist since it may require occlusal adjustment and/or extractions, fillings, crowns, etc. In addition, studies have indicated a correlation of coronary artery disease to poor oral hygiene.
- Importantly, since TMJ disorders typically are chronic issues with no perfect fixes, the patient will probably need long term follow up, medications and re-adjustment of bite/occlusion and/or occlusal adjustment device (such as bite plane, etc) on a periodic basis.

OT Implications:
Health condition

Personal factors: married, national guard, motivated

Environmental factors: 2 story house, family support

Body function/structure: Patient experiencing complex coronary issues related to CAD, hyperlipidemia, and HTN; Patient experiencing OA and has anxiety

Activities: patient is motivated to participate fully in ADLs related to PLOF. Patient wants to be (I) in all ADLs including bathing, dressing, light meal prep, driving, gardening and social relationships with family.

Participation: social engagement with wife and VFW

Intervention:

- Patient needs education on ADLs related to approved MET level
- Energy conservation training
- Depression screening
- Stress management
- Proper breathing techniques during ADLs
- Ergonomics for gardening to protect joints
- Joint protection

- Strengthening and endurance training
- Explore potential health equipment needs

PT Implications:
Health Condition

Personal Factors: married, retired, enjoys physical activity, motivated

Environmental factors: 2 story house with stairs, family support, gardening

Body function/structure: LE edema, pain – chest from surgical procedure, possibly leg from harvest site, incision sites – both chest and leg harvest, pain in hip or knee resulting from OA, LE weakness from OA, anxiety, potential endurance and deconditioning issues related to pain and OA, TMJ pain, possibly decreased range of motion in hips and knees related to OA

Activities: decreased ability to transfer due to pain and or weakness, gait deviations due to pain and or previous OA issues, inability to climb stairs to get into home and community, inability to garden due to decreased trunk/LE strength, range of motion, pain, possible issues with eating(chewing) or headaches due to TMJ issues

Participation: social interaction at VFW, role as husband

Intervention: (Prioritized)

- Assess prior exercise patterns/habits
- Transfer and gait training demonstrating normal sinus rhythm as well as understanding UE precautions as result of CABG – no lifting > 10 lbs, pain control, check incision site
- Patient/spouse education – energy expenditure, taking vital signs, rate of perceived exertion to determine level of stress and activity level including gardening activities and walking. Education regarding preventing additional cardiac events – increasing activity level – possibly water activities due to O/A if interested or activities related to outside and gardening to remain active, nutrition and referral to nutritionist if interested. Wife will be critical in helping to determine what the patient could be interested in as well as considering performing some of these things as a couple
- LE Edema – determine cause (CHF related or OA, other cause) – LE ROM exercises, avoid dependent sitting, rule out CHF, TED hose? Water consumption and sodium
- O/A – home with gardening (ensure this is valued by the patient) – UE restrictions, general strengthening and flexibility program as well as non-impact aerobic program to prevent further CAD problems and decrease symptoms of O/A while maintaining ability to garden
- TMJ – work with dentist regarding reducing tension in oral/temporal musculature, exercises to reduce tension/ stress in this area as well as consultation re splinting

Medicine Implications:
Health Condition

Personal Factors: married, national guard, anxiety, does not like meds

Environmental Factors: family support, Medicare/VA insurance

Body function/structure: CAD

Activities: gardening and playing bridge, motivated

Participation: wife, VFW

Intervention:

- Encourage patient to keep follow-up appointments with surgeon and cardiologist or generalist
- Reinforce a simple medical regimen (change drugs to match VA formulary--Lipitor to Zocor)
- Encourage a low salt and low fat diet
- Make sure that patient understands importance of cardiac rehab and has transportation to it
- Answer his and family's questions.

Nursing Implications:
Health Condition

Intervention:

- Using a Standards of Care for post CABG, perform an assessment to see how he is progressing.
- Acknowledge that his situation is complex and ask him what are his priorities related to his current condition. ie. Pain control, not being able to sleep, feelings of being overwhelmed. Also reassure him that most people do not like to take medications and ask him what it is that he does not like about taking his meds.
- Try to have a meeting with him wife/family so they can discuss what barriers there might be to his recovery when he returns home: i.e. physical barriers such as steps; need for ADL assistance. Have him think through an average day (before he had the surgery) and identify if there are any things he was doing before that he might need to adjust for on return home.
- I would have him tell you what he thinks he is supposed to do related to PT, OT and activity in general and then address any potential problems that are identified.
- Sometimes, health professionals draft a type of "contract" with the patient which identifies what the patient is willing and committed to do regarding their recovery. This could be a possible approach for this patient.

Chaplaincy Implications: **Health Condition**

Personal Factors: During his admission he mentioned to the nurse that his faith was important to him and he wanted his church notified. Nursing also noted that he made several pessimistic comments during admission (e.g. “IF I get home”, acknowledged being discouraged with his medical condition, and was easily irritated. Mrs. Potter was present during admission and said “see if you can give him his smile back, he really has a short fuse lately!” In my initial interview with Mr. Potter he acknowledged being a staunch Lutheran; he described having a strong faith and attending worship and other church activities frequently. As I listened he began talking about his bridge playing at the VFW, and how more and more he and his friends wind up talking about the wars in Iraq and Afghanistan, as some of them have grandsons serving in the military. They compare and contrast their own experiences with WW II and the Korean War, and often start talking about incidents that none of them had ever mentioned to anyone. He said “More than once, someone ends up really wrecked... just balling his head off. I guess I’m starting to wonder where God is in all this... I know what I was taught to believe, but I just can’t make sense of it anymore.” Mr. Potter started tearing up himself, and said, “and I think of some of the things I saw and did when I was in Germany.... I’ve never talked about that stuff.... And sometime soon I’m going to meet my Maker and then what?” At that point he started sobbing heavily. He was receptive to emotional support and prayer and subsequent visits. During the follow up meeting, he stated that he had felt relieved after the first meeting and began thinking about his war experiences more without them being so upsetting; he said he was surprised to find that “it even feels like Jesus was there with me – my faith feels more real than it ever has”. He reported that he began to feel not so much like he needed forgiveness but rather “I just needed to feel the sadness and suffering of so many people and talk with God about how to make sense of all this.”

Environmental Factors:

Body function/structure: He became restless as we talked. When I pointed this out, he said he hasn’t been sleeping well in the past few months and feels “bothered” all the time, but he doesn’t really know why. Anxiety.

Activities: Motivated to return to ADLs.

Participation: Activities at VA

Intervention:

- Mr. Potter was receptive to follow up spiritual care and requested that this writer contact his church before discharge.

Team Priorities:

- Dental Consult
 - The patient needs to be referred to a TMJ specialist for complete evaluation.

- Communication between dental provider and cardiologist about suitable pain control for TMJ in light of CAD
- The patient may require muscle relaxants and/or low dose antidepressants (such as Elavil) and significant pain management (NSAIDS). This necessitates consultation with the patient's primary care physician regarding possibility of drug interaction and potential for increased bleeding. Moreover, it would be important to involve the patient's social (case) worker due to the potential of muscle relaxants creating difficulty in operating a vehicle and other functions requiring motor abilities.
- If treatment recommended entails TMJ surgery significant change in diet would necessitate involvement of both the physician and dietician/nutritionist.
- A dental workup and necessary treatment should be completed in conjunction with the TMJ specialist since it may require occlusal adjustment and/or extractions, fillings, crowns, etc. In addition, studies have indicated a correlation of coronary artery disease to poor oral hygiene.
- Importantly, since TMJ disorders typically are chronic issues with no perfect fixes, the patient will probably need long term follow up, medications and re-adjustment of bite/occlusion and/or occlusal adjustment device (such as bite plane, etc) on a periodic basis.
- Work with dentist regarding reducing tension in oral/temporal musculature, exercises to reduce tension/ stress in this area as well as consultation re splinting
- OT Consult
 - Patient education on ADLs related to approved MET level
 - Energy conservation training
 - Proper breathing techniques during ADLs
 - Ergonomics for gardening to protect joints
 - Joint protection
 - Explore potential health equipment needs
- Cardiac Education
 - Cardiac Rehab
 - Strengthening and endurance training
 - Assess prior exercise patterns/habits
 - Encourage a low salt and low fat diet
 - Re-assess LE Edema after heart function has had chance to improve
 - Reinforce simple medication regimen with patient education and ensure meds are on VA formulary
 - Transfer and gait training demonstrating normal sinus rhythm as well as understanding UE precautions as result of CABG – no lifting > 10 lbs, pain control, check incision site
 - Patient/spouse education – energy expenditure, taking vital signs, rate of perceived exertion to determine level of stress and activity level including gardening activities and walking. Education regarding preventing additional cardiac events – increasing activity level – possibly water activities due to O/A if interested or activities related to outside and gardening to remain active, nutrition and referral to nutritionist if interested. Wife will be critical in helping to determine

what the patient could be interested in as well as considering performing some of these things as a couple

- Encourage follow-up for stress management and depression screening
- Mr. Potter was receptive to follow up spiritual care and requested that chaplain contact his church before discharge.
 - Also encourage follow up for stress management
- During discharge education for all disciplines:
 - Acknowledge that his situation is complex and ask him what are his priorities related to his current condition. ie. Pain control, not being able to sleep, feelings of being overwhelmed. Also reassure him that most people do not like to take medications and ask him what it is that he does not like about taking his meds.
 - Discuss potential recovery barriers with patient and wife. Have him think through an average day (before he had the surgery) and identify if there are any things he was doing before that he might need to adjust for on return home.
 - Open ended questions to ensure understanding
 - Encourage adherence to follow-up appointments, especially rehab, identify barriers
 - Answer his and family's questions

Final Provider Interventions and Members Responsible for Patient Outcomes:

- Order for Cardiac Rehab – MD
- Change Meds to VA formulary - MD
- Arrange dental consult – RN Case Manager
- OT Consult and Education – OT
- Cardiac Education – Nursing, Pharmacy and PT
- Spiritual Follow-up - Chaplain