N431 Care Plan # 1

Lakeview College of Nursing

Name Casey Buchanan

## Demographics (3 points)

| **Date of Admission** 1/30/21 | **Patient Initials** R.W. | **Age** 67 | **Gender** Male |
|---|---|---|---|
| **Race/Ethnicity** Caucasian | **Occupation** Retired. Previously was a truck driver. | **Marital Status** Married | **Allergies** NKDA |
| **Code Status** Prearrest: No CPR, no mechanical ventilation, no intubation. Full arrest: No CPR Okay to receive O2, Cpap/Bipap, IV fluids, and antibiotics. | **Height** 6'3" | **Weight** 206 lbs/ 93.4 kg | |

## Medical History (5 Points)

**Past Medical History:** Type II diabetes mellitus, acute kidney injury, atrial fibrillation, emphysema.

**Past Surgical History:** Total knee arthroplasty (no date listed), total hip arthroplasty (no date listed). Upper GI endoscopy with biopsy (2/1/21).

**Family History:** Brother is deceased and had cancer. No parental family history.

**Social History (tobacco/alcohol/drugs):** Patient states he doesn't drink alcohol or use recreational drugs. Patient does smoke half a pack of cigarettes a day. States he doesn't know for how many years, probably close to 40.

**Assistive Devices:** Patient uses an electric scooter when doing activities such as going to the store. Doesn't use an assistive device in his home or for short distances.

**Living Situation:** Patient lives at home. He states he is able to cook for himself, as well as perform activities of daily living on his own.

**Education Level:** High school.

## Admission Assessment

**Chief Complaint (2 points):** Vomiting, fatigue, difficulty swallowing, and headache.

**History of present Illness (10 points):**Patient is a 67-year-old male who presented in the emergency department with vomiting and fatigue that had been ongoing for several hours. He also stated that he has difficulty swallowing and has lost a significant amount of weight. Patient says he has lost 60 pounds since December 2020. Patient states that onset of the fatigue, dysphagia, and headaches began in December and have gotten progressively worse. He says he usually isn't in pain but has headaches often. He states naps and a dark room helps with his headaches.

## Primary Diagnosis

**Primary Diagnosis on Admission (2 points):**Diagnosis on admission was fatigue, nausea, vomiting, hypoglycemia, and moderate malnutrition.

**Secondary Diagnosis (if applicable):**After diagnostic testing the patient was also diagnosed with distal esophageal carcinoma with bleeding and partial obstruction, and candida esophagitis.

**Pathophysiology of the Disease, APA format (20 points):**

There are two main types of esophageal cancer. It is an evolving cancer. In the past, almost all esophageal cancer cases were squamous cell carcinomas in the middle part of the esophagus (Capriotti & Frizzell, 2016). This type of esophageal cancer was incurable and had inferior outcomes. Now, the healthcare field is seeing a change in the type of cancer. Adenocarcinoma, affecting the distal portion of the esophagus, is becoming more prevalent, accounting for more than 70% of all new esophageal cancer cases. There are more treatments

available with better outcomes for the patients with adenocarcinoma. We don't know what type of cancer this patient has, but it is likely adenocarcinoma.

Adenocarcinoma begins to form in glands of the esophagus that secrete mucus. It primarily occurs in the distal portion of the esophagus, at the gastroesophageal junction (Capriotti & Frizzell, 2016). The primary risk factors for adenocarcinoma are Barrett's esophagus, tobacco use, and chronic GERD (Mayo Clinic, 2020). Barrett's esophagus is a condition in which chronic GERD and acid from the stomach reflux back into the esophagus. Over time, repeated exposure to the stomach acid changes the cells lining the esophagus's distal portion. These cells often quickly mutate into cancerous cells. Reproduction of these damaged and abnormal cells lead to the development of a tumor and the possibility of metastasis of cancer cells to other areas of the body (Capriotti & Frizzell, 2016). Adenocarcinoma primarily affects white males over sixty years of age (Capriotti & Frizzell, 2016). In cases involving squamous cell carcinoma, cancer cells form in the lining of the esophagus. Thus, it is harder to treat due to it being too invasive. The main risk factors for squamous cell carcinoma include chronic alcohol use and tobacco use. While this patient didn't have GERD listed on his previous health history, he may have still had some form of untreated acid reflux. He is also a white male over sixty years of age, which fits into a predisposition of esophageal cancer. This patient has been using tobacco in the form of cigarettes for many decades. Tobacco use significantly increases the risk of developing cancer.

Unfortunately, esophageal cancer tends to grow without signs and symptoms until the tumor becomes large and often metastasizes. Esophageal cancer signs and symptoms include difficulty swallowing, significant weight loss, pressure or burning in the chest, heartburn, and chronic coughing (Mayo Clinic, 2020). The patient presented with difficulty swallowing and was even vomiting due to the mass in his esophagus. He has lost sixty pounds since the beginning of

December, which is a significant amount of weight. He had not complained of chest burning or tightness. Some significant complications of esophageal cancer include obstruction, pain, and bleeding in the esophagus. The EGD did indicate that there was a small amount of bleeding and partial obstruction.

With any form of cancer, vital signs and labs often reflect what is going on with the body. Patients with esophageal cancer are often malnourished. A malnourished patient could have a low hemoglobin and hematocrit level and are often anemic. This patient had low hemoglobin. An electrolyte imbalance could also be expected. The patient is likely to present with fatigue due to a lack of protein, calcium, and other essential nutrients. A stool occult would also show that there is bleeding somewhere in the GI tract. Vital signs such as blood pressure could be low due to fluid loss and malnutrition.

To diagnose esophageal cancer, the patient will have an endoscopy. During this procedure, the patient is given mild sedation. A tube-like camera is passed down through the mouth, into the esophagus, then into the stomach, and the duodenum's beginning portion. This procedure allows for direct visualization of the inside of these structures. The surgeon can photograph areas of concern and will take several tissue biopsies. These biopsies are sent to the pathology lab for examination and confirm the diagnosis. This patient did undergo an EGD and is awaiting final pathology results. A CT is often useful in identifying areas of metastasis or enlarged lymph nodes. This patient had a CT of his chest, abdomen, pelvis, and head, which revealed enlarged lymph nodes. Enlarged lymph nodes could be due to any illness but could also sign that cancer cells are in the lymphatic system.

While treatments for squamous cell esophageal cancer are limited, there are various options for people with adenocarcinoma. The overall five-year survival rate for patients with

esophageal cancer is 20-25% (Capriotti & Frizzell, 2016). One intervention is surgery to remove a portion of the esophagus, the upper part of the stomach, and surround lymph nodes and tissues. The remaining portion of the stomach is surgically attached to the esophagus. It is an extremely extensive surgery and carries many severe risks and complications. These complications include bleeding, leakage from anastomosis, and infection (Mayo Clinic, 2020). The patient also will most likely have to have a feeding tube surgically placed. The patient must get nutrients before and after surgery but swallowing food is often not an option. Chemotherapy and radiation are other options in treatment. Chemotherapy is a very successful treatment for adenocarcinoma. Chemotherapy uses chemical medications to kill cancer cells. It also often kills healthy cells as well and has many side effects. With cancer that has metastasized to other areas of the body, chemotherapy can relieve some of the disease's signs and symptoms (Mayo Clinic, 2016). Radiation is another treatment option that uses high-energy beams to kill cancer cells (Mayo Clinic, 2016).

This patient was adamant that he didn't want to receive any treatment for his cancer. Many patients often choose to forgo treatment because surgery, chemo, and radiation treatment can be torturous for them. While he refused extensive treatment, we did aim to help alleviate some of his symptoms through medication. One medication he was given, Toradol, was for pain. However, he must be closely monitored while on this drug and shouldn't be used for prolonged periods due to a GI bleed risk. He was also given ondansetron to relieve nausea.

This patient also has a diagnosis of candida esophagitis. Esophagitis is the inflammation of the esophagus. In this case, it was caused by the fungal organism Candida albicans. A common name for this is thrush. Risk factors include smoking, prolonged irritation of the esophagus, and GERD (Capriotti & Frizzell, 2016). The patient was given a nystatin mouthwash to shish and swallow

as a treatment. He refused to take the medication. The staff urged him to use the medicine to help decrease some of the inflammation in his esophagus.

**Pathophysiology References (2) (APA):**

Capriotti, T., Frizzell, J.P. (2016). *Pathophysiology: introductory concepts and clinical perspectives.* Philadelphia: F.A. Davis Company.

Mayo Clinic. (2020). *Esophageal cancer.* https://www.mayoclinic.org/diseases-conditions/esophageal-cancer/diagnosis-treatment/drc-20356090.

## Laboratory Data (15 points)

**CBC Highlight All Abnormal Labs—Explanations must be in complete sentences and contain in-text citations in APA format.**

| Lab | Normal Range | Admission Value | Today's Value | Reason for Abnormal Value |
|---|---|---|---|---|
| **RBC** | **4.40-5.80 mcL** | 4.54 | 4.77 | |
| **Hgb** | **12.0-15.8 g/dL** | 12.8 | 13.5 | Value consistent with nutritional deficiency. (Capriotti & Frizzell, 2016). |
| **Hct** | **38.0-50.0%** | 38.9 | 40.7 | |
| **Platelets** | **140-440 mcL** | 221 | 205 | |
| **WBC** | **4.40-5.80 mcL** | 12.70 | 13.40 | Value consistent with pathogenic fungal infection. (Demirezen et. al., 2015). |
| **Neutrophils** | **40.0-68.0%** | 73.8 | 76.0 | Value consistent with pathogenic fungal infection. (Demirezen et. al., 2015). |
| **Lymphocytes** | **18.0-49.0%** | 15.9 | 13.8 | Value consistent with pathogenic fungal infection. (Demirezen et. al., 2015). |
| **Monocytes** | **3.0-13.0%** | 8.6 | 7.6 | |

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|---|---|---|---|---|
| **Eosinophils** | **0.0-8.0%** | 1.4 | 1.7 | |
| **Bands (Basophils)** | **0.0-1.0%** | 0.3 | 0.9 | |

**Chemistry Highlight All Abnormal Labs—Explanations must be in complete sentences and contain in-text citations in APA format.**

| Lab | Normal Range | Admission Value | Today's Value | Reason For Abnormal |
|---|---|---|---|---|
| **Na-** | **133-144 mmol/L** | 131 | 139 | Value consistent with excessive vomiting and dehydration. (Capriotti & Frizzell, 2016). |
| **K+** | **3.5-5.0 mmol/L** | 4.4 | 3.9 | |
| **Cl-** | **98-107 mmol/L** | 102 | 107 | |
| **CO2** | **21-31 mmol/L** | 23 | 26 | |
| **Glucose** | **70-110 mg/ dL** | 44 | 133 | Low value consistent with vomiting. High value consistent with stress. (Capriotti & Frizzell, 2016). |
| **BUN** | **7-25 mg/dL** | 60 | 15 | Value consistent with acute kidney injury. (Capriotti & Frizzell, 2016). |
| **Creatinine** | **0.50-1.20 mg/dL** | 3.33 | 0.88 | Value consistent with acute kidney injury. (Capriotti & Frizzell, 2016). |
| **Albumin** | **3.5-3.7 g/dL** | 3.1 | No new value | Low value consistent with malnutrition. (Capriotti & Frizzell, 2016). |
| **Calcium** | **8.8-10.2 mg/dL** | 8.3 | 8.4 | Value consistent with malnutrition. (Capriotti & Frizzell, 2016). |
| **Mag** | **1.5-2.6 mg/ dL** | 2.1 | No new value | |
| **Phosphate** | **2.5-4.5 mg/ dL** | 52 | No new value | |
| **Bilirubin** | **0.2-0.8 mg/ dL** | 0.3 | No new values | |
| **Alk Phos** | **32-104 U/L** | 52 | No new values | |
| **AST** | **10-40** | 8 | No new values | Value consistent with diabetes and malnutrition. (Capriotti & Frizzell, 2016). |

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|---|---|---|---|---|
| **ALT** | **10-30 u/L** | 5 | No new values | Value consistent with diabetes and malnutrition. (Capriotti & Frizzell, 2016). |
| **Amylase** | **23-85 u/L** | No value | No value | |
| **Lipase** | **12-70 u/L** | 12.0 | No new values | |
| **Lactic Acid** | **0.5-1.0 mmol/L** | 1.5 | No new values | |
| **Troponin** | | No value | No value | |
| **CK-MB** | | No value | No value | |
| **Total CK** | | 38 | No new values | |

**Other Tests Highlight All Abnormal Labs—Explanations must be in complete sentences and contain in-text citations in APA format.**

| Lab Test | Normal Range | Value on Admission | Today's Value | Reason for Abnormal |
|---|---|---|---|---|
| **INR** | **0.8-1.4** | | | |
| **PT** | **10.1-13.1 seconds** | | | |
| **PTT** | **25-36 seconds** | | | |
| **D-Dimer** | **<0.5** | | | |
| **BNP** | **<100 mg/mL** | | | |
| **HDL** | **>60 mg/dL** | | | |
| **LDL** | **<100 mg/dL** | | | |
| **Cholesterol** | **<200 mg/dL** | | | |
| **Triglycerides** | **<150 mg/dL** | | | |
| **Hgb A1c** | **<7%** | | | |
| **TSH** | **0.4-4.0 mu/L** | | | |

**Urinalysis Highlight All Abnormal Labs—Explanations must be in complete sentences and contain in-text citations in APA format.**

| Lab Test | Normal Range | Value on Admission | Today's Value | Reason for Abnormal |
|---|---|---|---|---|
| **Color & Clarity** | **Yellow, clear** | Straw, clear | No new values | |
| **pH** | **4.6-8.0** | 5.0 | | |
| **Specific Gravity** | **1.005-1.030** | 1.006 | | |
| **Glucose** | **Negative** | Negative | | |
| **Protein** | **Negative** | Negative | | |
| **Ketones** | **Negative** | Negative | | |
| **WBC** | **Negative/ 0-4** | Negative | | |
| **RBC** | **Negative/ 0-2** | 3-5 | | Value consistent with acute kidney injury. (Capriotti & Frizzell, 2016). |
| **Leukoesterase** | **Negative** | Negative | | |

**Arterial Blood Gas Highlight All Abnormal Labs—Explanations must be in complete sentences and contain in-text citations in APA format.**

| Test | Normal Range | Value on Admission | Today's Value | Explanation of Findings |
|---|---|---|---|---|
| **pH** | | | | |
| **PaO2** | | | | |
| **PaCO2** | | | | |
| **HCO3** | | | | |
| **SaO2** | | | | |

**Cultures Highlight All Abnormal Labs—Explanations must be in complete sentences and contain in-text citations in APA format.**

| Test | Normal | Value on | Today's | Explanation of Findings |
|---|---|---|---|---|

| | Range | Admission | Value | |
|---|---|---|---|---|
| **Urine Culture** | | | | |
| **Blood Culture** | No growth | | Preliminary result: no growth | |
| **Sputum Culture** | | | | |
| **Stool Culture** | Negative for C. diff | | Final result: Negative | |

**Lab Correlations Reference (1) (APA):**

Capriotti, T., Frizzell, J.P. (2016). *Pathophysiology: introductory concepts and clinical perspectives.* Philadelphia: F.A. Davis Company.

Demirezen, Ş., Dönmez, H. G., Özcan, M., & Beksaç, M. S. (2015). Evaluation of the relationship between fungal infection, neutrophil leukocytes and macrophages in cervicovaginal smears: Light microscopic examination. *Journal of cytology*, *32*(2), 79–84. https://doi.org/10.4103/0970-9371.160544.

## Diagnostic Imaging

**All Other Diagnostic Tests (5 points):** Patient underwent a 12 lead EKG, upper gastrointestinal endoscopy, chest x-ray, CT without contrast of head, chest, abdomen, and pelvis.

**Diagnostic Test Correlation (5 points):** A twelve lead EKG was performed to give a snapshot of the heart. An EKG shows if the patient is having a dysrhythmia, ischemia, infarction, or other abnormality. This test was done as a routine diagnostic tool. The patient has a history of atrial fibrillation. A routine chest x-ray was performed. A chest x-ray is a diagnostic tool that can help determine if there are major concerns in the chest such as a pneumothorax, pleural effusion, of enlargement of the heart. The chest x-ray didn't show any major findings for this patient. A CT

of the chest, abdomen, and pelvis was also performed as a way to visualized structures, organs, tissue, and bones inside the body with greater detail than a standard x-ray. The CT scan showed mild emphysema, a nodule in the right lower lung, severe coronary calcification, enlarged lymph nodes, and moderate to severe atherosclerosis. It also identified a lobulated mass on the fundus of the stomach and distal esophagus. This is an important finding, because it correlates with the patient being unable to eat and enduring constant vomiting. A CT of the head was also done due to the patient was experiencing chronic headaches. A CT of the head can show hemorrhage, infarction, or a mass. This patients CT showed mild cerebral atrophy and microvascular disease. After viewing the esophageal and stomach mass on the CT scan, the patient underwent an esophagogastroduodenoscopy, also called an EGD. An EGD uses a long camera, that looks like a tube, to visualize the esophagus, stomach, and the duodenum. With an EGD the physician is able to view the mass and take a tissue biopsy. The final result of the biopsy was not completed, but preliminary results show cancer.

**Diagnostic Test Reference (1) (APA):**

Hinkle, H. L., & Cheever, K. H., (2018). *Textbook of medical-surgical nursing* (14th ed.). Wolters Kluwer.

**Current Medications (10 points, 1 point per completed med)**
***10 <u>different</u> medications must be completed***

**Home Medications (5 required)**

| **Brand/ Generic** | **Betapace/ sotalol HCl** | **Prinivil/ lisinopril** | **Zocor/ simvastatin** | **Glucophage/ metformin HCl** | **Oleptro/ trazodone HCl** |
|---|---|---|---|---|---|
| **Dose** | 160 mg | 20 mg | 20 mg | 1000 mg | 100 mg |
| **Frequency** | Once daily | Once daily | Every night | Twice daily with meals | Twice daily |
| **Route** | Oral | Oral | Oral | Oral | Oral |
| **Classification** | Class III antiarrhythmic | Antihypertensive, vasodilator | Antihyperlipidemic | Antidiabetic | Antidepressant |
| **Mechanism of Action** | Decreases AV node conduction and increases AV refraction. This decreases atrial fibrillation. | Stops angiotensin I from converting to angiotensin II (vasoconstrictor). Stopping angiotensin II also decreases aldosterone. Decreasing aldosterone allows kidneys to excrete sodium and water which reduces blood pressure. | Simvastatin interferes with an enzyme that is needed for cholesterol to synthesis. Once the levels of cholesterol in liver cells decrease, LDL (bad cholesterol) is consumed by the cells → reduces cholesterol in the blood and serum triglycerides. | Promotes storage of glucose as glycogen in the liver which reduces glucose production. Improves glucose use by fat tissue. Increases insulin receptors. | Blocks serotonin reuptake which gives an antidepressant effect. |
| **Reason Client Taking** | Patient has atrial fibrillation. This medication helps maintain normal sinus rhythm. | Decrease blood pressure as well as improve heart function. | Lower cholesterol levels. Also helps reduce the risk of heart complications. | Manage and reduce blood glucose levels in type II diabetes. | To treat depression, especially with his cancer diagnosis. |
| **Contraindications (2)** | Asthma, Second or third-degree heart block without | Hypersensitivity to lisinopril. History of | Active liver disease. Hypersensitivity to | Advanced renal disease. Metabolic acidosis. | Hypersensitivity to trazodone. Recovering |

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| | pacemaker. | angioedema. | simvastatin. | | from an MI. |
| **Side Effects/ Adverse Reactions (2)** | Hyperglycemia, Dyspnea. | Anemia. Weight gain or loss. | Rash. Hyperglycemia. | Headache. Abdominal distension. | Orthostatic hypotension. Anxiety. |
| **Nursing Considerations (2)** | Usually not withheld prior to surgery because stopping abruptly and missing doses can cause a life-threatening reaction. Apical pulse, blood pressure, I&O, daily weight, and respiratory rate should be monitored closely and frequently. | Monitor blood pressure often and hold if excessive hypotensive. Should not be given if patient is hemodynamically unstable. | Use cautiously in patients with hepatic or renal impairment. Give one hour before or four hours after giving cholestyramine or colestipol. | Withhold drug if patient is dehydrated of septic. Monitor patient's blood glucose level to assess if the drug is effective. | Closely monitor patient for suicidal thoughts and behaviors. Give larger portion of the dose at night if it makes the patient drowsy. |
| **Key Nursing Assessment(s)/Lab(s) Prior to Administration** | Vital signs such as apical pulse, BP, RR, and O2 saturation should be checked prior to administration. Baseline EKG should be done to measure QT interval. Creatinine clearance should be checked to make sure the kidneys are functioning properly. Electrolyte levels must be monitored, especially potassium and magnesium. | Blood pressure and other vitals should be monitored before and after administration. Liver enzymes should be checked because lisinopril could cause a syndrome that can necrose the liver. Blood glucose levels should be checked routinely as the risk of | Obtain baseline triglyceride levels and liver enzymes and monitor frequently to see how well the drug is working. Monitor CPK levels because high levels could cause kidney failure. | Renal function and GFR should be assessed before giving. Blood glucose should also be assessed before giving. | Vitals should be taken before administering medication. Interestingly this patient has atrial fibrillation, and this drug is contraindicated in patient with cardiac disease because it can cause an arrhythmia. The nurse should contact the pharmacist before administering this drug to a patient with |

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| | | hypoglycemia a increases with the use of an ACE. Creatinine levels and renal function should be assessed. Potassium levels should be monitored as hyperkalemia can occur with the use of an ACE. | | | an existing heart condition. |
| **Client Teaching needs (2)** | Patients taking this medication at home must know how to check vital signs and daily weights. The patient should be advised to notify their physician if they are experiencing shortness of breath. | Patients should be advised to seek emergency treatment right away if they have difficulty breathing or swallowing. No salt substitutes due to risk of hyperkalemia. | Don't take with grapefruit juice. Take drug in the evening. | Take with food to reduce GI distress. Instruct the patient to avoid alcohol because it can increase the risk of hypoglycemia and lactic acidosis. | Take with food or a snack to reduce risk of nausea. Advice the patient not to abruptly stop taking medication. |

**Hospital Medications (5 required)**

| **Brand/ Generic** | **Zofran/ ondansetron** | **NicoDerm CQ/ nicotine transdermal patch** | **Mycostatin/ nystatin** | **Neurotonin/ gabapentin** | **Toradol/ ketorolac** |
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|---|---|---|---|---|---|
| **Dose** | 4 mg | 21 mg | 500,000 units in 5mL | 600 mg | 30 mg |
| **Frequency** | Every 6 hours as needed | 24-hour patch | 4 times daily. | Twice daily | Every 6 hours as needed |
| **Route** | IV | Transdermal | Oral Suspension | Oral | IV |
| **Classification** | Antiemetic | Smoking cessation adjunct. | Antifungal | Anticonvulsant | Analgesic, anti-inflammatory |
| **Mechanism of Action** | Blocks the small intestine from releasing serotonin and blocks serotonin receptors. This blocks signals to the CNS. | Binds to nicotine receptors in the brain. | Binds to sterols in fungal cells. Fungal cells eventually die. | Structurally similar to GABA (neurotransmitter in the brain), that inhibits the rapid firing of neurons. | Blocks cyclooxygenase (enzyme needed to make prostaglandins). Prostaglandins cause vasodilation, pain, and swelling. They also promote pain transmission to the spinal cord. |
| **Reason Client Taking** | Nausea | Reduce nicotine cravings and withdraw symptoms. | To treat oral candidiasis (thrush) | To treat neuropathic pain. | Severe headache. |
| **Contraindications (2)** | Congenital long QT syndrome. Hypersensitivity to ondansetron. | Life-threatening arrhythmias. Hypersensitivity to nicotine. | Hypersensitivity to nystatin or its components. Dysphagia | Hypersensitivity to gabapentin. Major CNS depression when taken with alcohol. | History of peptic ulcer disease. Cerebrovascular bleeding. |
| **Side Effects/ Adverse Reactions (2)** | Bronchospasm. Diarrhea. | Hypertension. Headache. | Abdominal pain. Nausea. | Agitation. Acute renal failure. | Laryngeal edema. Urine retention. |

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| **Nursing Considerations (2)** | Monitor patient closely for signs of hypersensitivity. Monitor patient closely for serotonin syndrome (chills, confusion, diaphoresis, fever, restlessness). | Remove patch if patient is undergoing an MRI.<br>Place patch on hairless, dry, and intact skin. | If the patient refuses to use the mouthwash form, there are other options such as a lozenge.<br>Keep suspension away from eyes. | Gabapentin can be mixed with applesauce or fruit juice.<br>Be aware that various brands of gabapentin are not interchangeable. | Read label carefully. IM form is not for IV use and vice-versa.<br>Monitor patient for rash or adverse reactions because reactions can happen suddenly. |

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| **Key Nursing Assessment(s)/Lab(s) Prior to Administration** | Vitals and respiratory rate should be checked before administration. Magnesium and potassium levels should also be checked because a deficiency could cause a heart dysthymia while taking this medication. An EKG should be reviewed before administration of this drug to check for long QT syndrome. | Assess the patient's skin where patch is going to be placed. Don't place on damaged or broken skin. | The nurse should assess the patient's ability to swallow. | Renal function tests must be conducted. The patient should also be monitored and assessed for suicidal thinking and behaviors. | Vitals must be taken before administering drug. BP should not be high or low, the patient must have a normal respiratory rate, pulse, and O2 sat before administration. Check patient and their labs for signs of bleeding. Monitor hemoglobin and hematocrit for anemia. This drug can cause/worsen renal failure so monitoring of the BUN and serum creatinine levels is important. Monitor liver enzymes to prevent liver damage. |

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| **Client Teaching needs (2)** | Instruct client to report a rash or other adverse effects immediately. Tell the patient that this medication can cause transient blindness. | Instruct patient to rotate patch sites. Urge patient to also join a smoking cessation program or support group. | Instruct patient to swish the suspension in his mouth for as long as possible before swallowing. Let the patient know that it might be an unpleasant taste. | Don't take within 2 hours of taking an antacid. Oral reactions may occur so educate the patient on the importance of good oral hygiene. | Instruct patient to use the call button for assistance getting up after receiving this medication due to effects on the CNS. Instruct the patient to inform the healthcare team right away if they feel chest pain, shortness of breath, or slurred speech. |

**Medications Reference (1) (APA):**

Jones & Bartlett Learning. (2019). *2019 Nurse's drug handbook* (18th. Ed.). Burlington, MA.

## Assessment

**Physical Exam (18 points)**

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| **GENERAL (1 point):**<br>**Alertness: Alert and oriented. Easy to wake up.**<br>**Orientation: Oriented to person, place, and time.**<br>**Distress: Doesn't appear distressed. Refuses to take some medications but overall cooperative.**<br>**Overall appearance: Appears depressed, thin, sallow** | |
| **INTEGUMENTARY (2 points):**<br>**Skin color: Appropriate for age and race**<br>**Character: Dull, dry**<br>**Temperature: Warm**<br>**Turgor: Intact**<br>**Rashes: No rashes**<br>**Bruises: Bruise on upper right arm at previous IV site.**<br>**Wounds: No wounds. Mepilex dressing applied to sacrum to prevent breakdown.**<br>**Braden Score: 19** | |

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|---|---|
| **Drains present: Y☐ N ☒**<br>**Type:** | |
| **HEENT (1 point):**<br>**Head/Neck: Normocephalic. Trachea midline. No lymphadenopathy.**<br>**Ears: Hearing intact. No sores.**<br>**Eyes: Clear, no discharge.**<br>**Nose: Patent**<br>**Teeth: Appropriate dentition. Missing various teeth.** | |
| **CARDIOVASCULAR (2 points):**<br>**Heart sounds: S1, S2 auscultated, no murmurs, no gallops, no rubs.**<br>**S1, S2, S3, S4, murmur etc.**<br>**Cardiac rhythm (if applicable): Atrial fibrillation**<br>**Peripheral Pulses: Palpable**<br>**Capillary refill: < 3**<br>**Neck Vein Distention: Y ☐ N ☒ Edema Y ☐ N ☒**<br>**Location of Edema:** | . |
| **RESPIRATORY (2 points):**<br>**Accessory muscle use: Y☐ N ☒**<br>**Breath Sounds: Location, character: Diminished lung sounds. No wheezes, or crackles. No shortness of breath. No assistive oxygen devices, on room air. Barreled chest.** | . |
| **GASTROINTESTINAL (2 points):**<br>**Diet at home: Full diet. Patient states it is difficult for him to swallow at times and doesn't feel hungry.**<br>**Current Diet: Full liquid diet.**<br>**Height: 6'3"**<br>**Weight: 206 lbs**<br>**Auscultation Bowel sounds: Bowel sounds present in all four quadrants.**<br>**Last BM: Liquid stool the previous evening (2/2)**<br>**Palpation: Pain, Mass etc.: Abdomen soft, non-tender. No nausea currently. Patient had been nauseous throughout the previous night.**<br>**Inspection:**<br>**Distention: No distention**<br>**Incisions: No incisions**<br>**Scars: No abdominal scarring**<br>**Drains: No drains present**<br>**Wounds: No wounds present**<br>**Ostomy: Y ☐ N ☒**<br>**Nasogastric: Y ☐ N ☒**<br>**Size:**<br>**Feeding tubes/PEG tube Y ☐ N ☒**<br>**Type:** | . |
| **GENITOURINARY (2 Points):**<br>**Color: Yellow** | |

| | |
|---|---|
| **Character: Clear**<br>**Quantity of urine: 1080 output of urine in 12 hours**<br>**Pain with urination: Y ☐ N ☒**<br>**Dialysis: Y ☐ N ☒**<br>**Inspection of genitals: Genitals not inspected. Patient cleaned own genitals.**<br>**Catheter: Y ☐ N ☒**<br>**Type:**<br>**Size:** | |
| **MUSCULOSKELETAL (2 points):**<br>**Neurovascular status: Intact**<br>**ROM: Good range of motion in all four extremities.**<br>**Supportive devices: Assist x1 to get up.**<br>**Strength: Diminished strength throughout.**<br>**ADL Assistance: Y☐ N ☒**<br>**Fall Risk: Y ☒ N☐**<br>**Fall Score: 13**<br>**Activity/Mobility Status: Patient ambulates on his own. Assist available in case of loss of balance.**<br>**Independent (up ad lib)** ☐<br>**Needs assistance with equipment** ☐<br>**Needs support to stand and walk**☒ | . |
| **NEUROLOGICAL (2 points):**<br>**MAEW: Y ☒ N☐**<br>**PERLA: Y ☒ N☐**<br>**Strength Equal: Y ☒ N ☐ if no - Legs ☐ Arms ☐ Both ☐**<br>**Orientation: Oriented to person, place, and time.**<br>**Mental Status: Competent.**<br>**Speech: Clear**<br>**Sensory: No impairments**<br>**LOC: Conscious. Able to be woken up easily.** | . |
| **PSYCHOSOCIAL/CULTURAL (2 points):**<br>**Coping method(s): Patient is close with family members. He also had multiple friends call to check up on him. He does appear depressed about his cancer diagnosis and is adamite that he doesn't want to receive any treatment.**<br>**Developmental level: Appropriate for age**<br>**Religion & what it means to pt.: Patient didn't discuss religious views.**<br>**Personal/Family Data (Think about home environment, family structure, and available family support): Patient was living at home before coming to the hospital. He will be going to a nursing home upon admission until he regains strength. His daughters are present and offer him support.** | . |

**Vital Signs, 2 sets (5 points)**

| Time | Pulse | B/P | Resp Rate | Temp | Oxygen |
|---|---|---|---|---|---|
| 0730 | 62 | 132/72 | 18 | 98.5 | 99 |

| | | | | | |
|---|---|---|---|---|---|
| **1100** | **81** | **123/65** | **16** | **97.5** | **98** |

**Vital Sign Trends:** The vital signs remained stable and within normal limits throughout the morning. There were no significant changes or jumps in the vital signs. While his morning blood pressure is considered slightly elevated, it was within reason that it was slightly elevated due to his current medical state. He had great oxygen saturation on room air throughout the day. He didn't report shortness of breath or difficulty beathing. He also didn't report any severe pain. He did state he had a mild headache and was given medication.

**Pain Assessment, 2 sets (2 points)**

| Time | Scale | Location | Severity | Characteristics | Interventions |
|---|---|---|---|---|---|
| **0730** | **Numeric 0-10** | | **Patient reports no pain** | | |
| **1100** | **Numeric 0-10** | **Head** | **2 (Patient stated headache was worse at 0900 before receiving medication)** | **Dull, nagging** | **Patient received Toradol. Room lights turned down and patient resting.** |

**IV Assessment (2 Points)**

| IV Assessment | Fluid Type/Rate or Saline Lock |
|---|---|
| **Size of IV: 20 gauge**<br>**Location of IV: Median cubital vein**<br>**Date on IV: 1/30/21** | Saline lock. Flushed with saline at 0900. Patent, flushes with ease. Patient reports no pain. No signs of erythema or drainage. |

| | |
|---|---|
| **Patency of IV: Patent**<br>**Signs of erythema, drainage, etc.:**<br>**IV dressing assessment:** | Dressing dry and intact. |

**Intake and Output (2 points)**

| **Intake (in mL)** | **Output (in mL)** |
|---|---|
| 300 mL intake since 0700. | 1080 mL since midnight. |

**Nursing Care**

**Summary of Care (2 points)**

**Overview of care:** The patient was continuously monitored throughout the day. Oral care and bathing assistance was provided. Medications were administered as prescribed. Many of his tests and diagnostics were coming back and the plan of care was being developed based on those results. The focus of treatment is to regain enough strength to be transferred to a nursing home to continue to be monitored. The patient has various underlying medical issues such as type II diabetes, atrial fibrillation, and emphysema. During this hospital admission he was diagnosed with esophageal cancer. Discussions were centered around plan of care and treatment of his cancer.

**Procedures/testing done:** The patient had several diagnostic tests done such as a chest x-ray, 12 lead EKG, lab analysis, a CT of his head, and a CT of his abdomen, pelvis, and chest. He also underwent an upper gastrointestinal endoscopy to view is esophagus and stomach.

**Complaints/Issues:** The patient did have a headache and also asked for the medication gabapentin often. No other complaints or issues noted.

**Vital signs (stable/unstable):** The patient's vital signs remained stable throughout the day. During is morning vitals, his systolic pressure was slightly elevated at 132, but didn't warrant concern. His blood pressure was rechecked at 1100 and was 123/65.

**Tolerating diet, activity, etc.:** He is on a full liquid diet. He said he wasn't hungry this morning and only wanted a cola beverage to drink. Throughout the day he was encouraged to drink water. Currently he only gets up to go to the bathroom and tolerates it well.

**Physician notifications:** The physician visited the patient to share some results from his EGD. No other notifications are this time.

**Future plans for patient:** The next steps include receiving and evaluating all final lab and diagnostic results. The patient states that he doesn't want any treatment for esophageal cancer. The goals for this patient include improving strength, meeting nutritional needs, and promoting support.

**Discharge Planning (2 points)**

**Discharge location:** The patient will be discharged to a nursing home, once stable, to regain strength.

**Home health needs (if applicable):** I am unaware of concrete plans for home health at this time. Possible home health needs might include supervision and hospice consultation.

**Equipment needs (if applicable):** The patient might need an assistive device such as a walker if unable to regain strength.

**Follow up plan:** There is no follow up plan at this time.

**Education needs:** Possible education topics for education include coping strategies for cancer diagnosis and pain interventions. The patient might also benefit from education on risk-prone health behaviors such as tobacco use.

**Nursing Diagnosis (15 points)**
***Must be NANDA approved nursing diagnosis and listed in order of priority***

| Nursing Diagnosis | Rational | Intervention (2 per | Evaluation |
|---|---|---|---|

| • Include full nursing diagnosis with "related to" and "as evidenced by" components | • Explain why the nursing diagnosis was chosen | **dx)** | • How did the patient/family respond to the nurse's actions?<br>• Client response, status of goals and outcomes, modifications to plan. |
|---|---|---|---|
| **1. Decreased gas exchange due to altered oxygen supply as evidence by emphysema.** | **Patient has a barrel chest due to emphysema as well as diminished lung sounds.** | **1. Encourage the patient to deep breath and use incentive spirometer.**<br>**2. Continue to monitor lung sounds, respirations, and oxygen saturation.** | **Patient allowed nursing staff to check vitals and listen to lungs.**<br>**Patient did use incentive spirometer when prompted.** |
| **2. Imbalanced nutrition related to esophageal cancer as evidence by sixty-pound weight loss.** | **Patient has lost 60 pounds since December. He has difficulty swallowing and has no appetite.** | **1. Encourage patient to eat small amounts of thickened fluids often.**<br>**2. Continue to provide fluids.** | **The patient is currently on a full liquid diet but didn't want any sustenance except Cola.**<br>**The patient would drink water when given water bottles.** |
| **3. Grieving related to loss of physiological well-being and potential death as evidence by depression.** | **Patient is processing a lifechanging event that is scary. Depression is common in the grieving process and the patient needs support during this time.** | **1. Be aware of mood swings and hostility. Redirect negative thinking.**<br>**2. Encourage the patient to express how they are feeling.** | **The patient would make comments that indicated he was experiencing negative thinking. However, he would engage in other conversation and it seemed to improve is mood.**<br>**The patient would briefly express how he was feeling.** |
| **4. Risk for injury related to impaired mobility as evidence by** | **The patient is at risk for falls due to medications and decreased strength.** | **1. Assist the client with ambulation, especially after receiving** | **The patient sometimes allowed the nursing staff to assist him during ambulation. Other times he stated** |

| | | | |
|---|---|---|---|
| **decreased strength.** | | **medication.**<br>**2.**<br>**Educate patient about fall risks in the home such as throw rugs, cords, and loose items on the floor.** | **that he forgot to use his call button.**<br>**The patient is responsive to discussing ambulation needs at home. His daughter is also willing to help in during this transition.** |

**Other References (APA):**

Vera, M. (2019). *13 Cancer nursing care plan.* Nurse Labs. https://nurseslabs.com/cancer-nursing-care-plans/.

**Concept Map (20 Points):**

### Subjective Data

Patient presented in the emergency department with nausea, vomiting, weakness, and headache. Patient is oriented to person, place, and time. He appears thin, sallow, and depressed. He states he has difficulty swallowing, eating, and has no appetite. Patient reports an extensive cigarette smoking history.

### Nursing Diagnosis/Outcomes

eased gas exchange due to altered oxygen supply as evidence by emphysema.

Imbalanced nutrition related to esophageal cancer as evidence by sixty-pound weight loss.

Grieving related to loss of physiological well-being and potential death as evidence by depression.

Risk for injury related to impaired mobility as evidence by decreased strength.

### Objective Data

Height: 6'3" Weight: 206 lbs BP: 123/65 Pulse: 81 RR: 16 Temp: 97.5 O2: 98 on room air.

Diminished lung sounds. EGD showed cancerous mass in distal esophagus. A tissue biopsy was performed. Final results are not yet back however, preliminary results suspect cancer. A CT also revealed coronary artery disease. Patient also has history of atrial fibrillation. CT of the head didn't show any areas of concern. Patient also diagnosed with thrush in the mouth.

### Patient Information

67-year-old Caucasian male.
Admitted on 1/30/21.
Diagnosis: Distal esophageal carcinoma. Candidiasis of oral cavity and esophagus.
He is a DNR. He is willing to receive some medications and oxygen. No intubation or mechanical ventilation. No CPR.
No known allergies.

### Nursing Interventions

Encourage the patient to deep breath and use incentive spirometer.
Continue to monitor lung sounds, respirations, and oxygen saturation.
Encourage patient to eat small amounts of thickened f fluids often.
Continue to provide fluids.
Be aware of mood swings and hostility. Redirect negative thinking.
Encourage the patient to express how they are feeling.
Assist the client with ambulation, especially after receiving medication.
Educate patient about fall risks in the home such as hrow rugs, cords, and loose items on the floor.