

# Nursing Case Study

## I. Health History

The subject of my case study is W. K. W.K. is a 95 year old white male who was admitted to Moses Cone Hospital on November 23, 2002. Prior to being admitted to the hospital, W. K. had been in excellent health. His troubles apparently began three weeks prior to being admitted. On November 23, W. K.'s son found him lying on the floor confused, and soaked in urine.

Mr. K. was diagnosed as having an acute cerebral vascular accident. This disorder can also be described as a "stroke". It occurs when there is an interruption of normal blood flow in one or more of the blood vessels that supply the brain. Thrombosis, embolism, and hemorrhage are the primary causes of a CVA. (Sommers and Johnson 2002) The tissues of the brain become ischemic, leading to hypoxia or anoxia with destruction or necrosis of the neurons, glia, and vasculature. Complications of CVA include unstable blood pressure, sensory and motor impairment, infection, pneumonia, contractures, and pulmonary emboli. CVA is the third leading cause of death in the United States and affects more than 500,000 Americans annually. (Sommers and Johnson 2002)

He was widowed in October of 2001, one daughter has coronary artery disease, one son died of an MI at age 37, and one son died with lung cancer at 57. He had been the primary care giver of his daughter until she was admitted to the hospital three weeks ago. She is dying with a short bowel syndrome and cirrhosis and is now being taken care of in hospice. Soon after being left alone, Mr. K.'s appetite decreased and he had become congested. He was placed on Paxil to treat symptoms of depression. He had also been taking Cipro for congestion. Also his family noticed that he was suffering from confusion. As a result, they brought him into the Emergency Room for evaluation. The Emergency Room doctors performed a CT scan of the brain which revealed evidence of old strokes. The doctors

stopped the Cipro and placed him on Z-pack. This seemed to improve his state of confusion, as well as reduce his symptoms of congestion.

On the 22nd, he was seen for the congestion. The doctor examined him thoroughly. This exam included giving him a chest x-ray. The chest x-ray proved to be normal. His white blood count was elevated and he was found to be mildly dehydrated. He was prescribed Amoxicillin 500 three times a day, and Guaifenesin. His past medical history is short including depression, stroke, and presbycusis. He has not had any prior surgery and there are no known allergies.

## **II. Diagnostic Measures**

On November 25, 2002 W. K. underwent several diagnostic studies in order to confirm that he indeed had suffered a stroke on November 23. A MRI scan without contrast, of the brain was performed; these results were compared to a similar scan performed on November 23. The scan revealed bilateral acute infarcts; the largest was located in the left superior cerebellum. Atrophy and chronic ischemic change was also evident. The MRA scan, without contrast, of the intracranial region showed significant intracranial atherosclerotic disease in one or two occluded branches of the right middle cerebral. On the same day, W. K. had his first DG swallow function test. Under lateral video fluoroscopic observation, various consistencies of oral barium blouses were administered to the patient. The video tape recording revealed Frank Tracheal Aspiration with thin liquid, nectar, thick liquid and honey thick consistency barium solutions as well as vallecular pooling. These findings explain the source of Mr. K.'s congestion. Finally, a DG chest portable 1V test was performed. The results of this test were compared to a similar test performed on November 12. There was found to be mild improvement in W. K.'s interstitial prominence. There was no pneumonia or focal infiltrates found.

When W. K. was admitted to the hospital, his abnormal laboratory findings included a low potassium level of 3.1 mEq/Lh, a low lymphocyte count of 3%, a low monocyte count of 0%, and a low ABS monocyte count of 0% k/uL. His glucose level was high with a reading of 161 mg/dl. There was a high AST/SGOT of 46 U/L. There was a high WBC count of 24.2 K/uL. The RDW was high at 15.3%; as was the neutrophil count of 97% and a high ADS granulocyte reading of 23.5 K/uL.

When I met M. K. on the 25th of November, his carbon dioxide level was high at 33 mEq/L and his WBC count was high at 17.2 K/uL. His RDW was high at 15.0%. His hemoglobin was low at 11.1 g/dL and his hematocrit was low at 33.5%. Finally, his RBC was low at 3.86 MiL/uL.

His vital signs were as followed: blood pressure 143/86, heart rate of 84, respirations were 20, temperature afebrile at 95 degrees, and his oxygen saturation was 95%. Mr. K. denied any pain. He had a gaze preference to the left, and a slight left facial droop. He was confused, agitated, and had slurred speech. W. K.'s heart sounds were a regular rate and rhythm without any murmurs. Wheezes were present in the left lung lower lobe. Bowel sounds were active in all four quadrants. No edema present and pedal pulses were not palpable. He had a closed IV in place in his right hand, for quick distribution of IV drugs. This site was free of any signs of irritation. He was placed on three liters of oxygen by way of a nasal canula. A Foley catheter was in place with out any discomfort. Mr. K.'s movements proved his anxiety level to be high. His activity was limited due to weakness in left leg and confusion; he also had a waist belt to restrain him from getting out of bed. His skin was warm and dry; he had a few abrasions on his left arm. He had erythematous areas on his iliac, spinal cord, and sacrum.

### **III. Diet**

When W. K. was first admitted to the hospital he was ordered by his doctor to be on a NPO diet. However, to prevent malnourishment he was allowed to receive a dysphagia meal. This diet consists of pureed foods such as scrambled eggs pureed vegetables, fruits, and custards. He also has to have all thin liquids thickened with Thick It. Due to the stroke Mr. K. has dysphagia, and at times aphagia. His foods can be made more appealing if the patient smells the food first. As the nurse it is important that his head is raised 90 degrees at meal times and 30 minutes after to decrease aspiration. (Sparks and Taylor 2001) It is also important for this client to receive adequate fluid intake, because he shows signs of mild dehydration. After meals his bowel sounds need to be monitored.

### **IV. Drug Therapy**

W. K. is on a total of three drugs that help treat his condition. As always the five rights of drug administration must be in effect when giving a client medication. The first drug is Aspirin also known as Aspergum, Bayer, Easprin, Ecotrin, Empirin, Entrophen, Genpotin, Norwich, Novasen, and Zorprin. He is to take 325 mg by mouth everyday at 10:00 am. This drug is classified as an antiplatelet drug. W. K's immobility makes it easy for blood clots to form. Aspirin was prescribed to thin his blood and protect him from any blood clots or a pulmonary embolus. This medication needs to be taken with food or after meals if GI upset occurs. Nausea, GI upset, heartburn, easy bruising, and gum bleeding may occur. (Karch 2000)

The second drug is Paxil or Paroxetine, an antidepressant. Mr. K. takes 12.5 mg of this drug every day by mouth at 10:00 am. W. K. has a history of depression and after his daughter was admitted to the hospital his appetite decreased because of reoccurring

depression. This medication may cause drowsiness, dizziness, tremors, GI upset, and alterations in sexual function. (Karch 2000)

The last drug is Lorazepam, also called Ativan. This drug is used to treat anxiety. W. K. takes this drug either IV or by mouth .3mg every 8 hours when needed. Mr. K. experiences high anxiety levels demonstrated by fidgeting, and signs of aggravation associated with being hospitalized and depression. The nurse needs to make sure that this medication is pushed slow, infuse at maximum rate of 2mg/min. Drowsiness, dizziness, and GI upset may occur. (Karch 2000)

## **V. Other Therapy**

To maintain W. K.'s oxygen levels between 95% and 100%, he was placed on 3L of oxygen. His oxygen saturation levels are monitored every four hours. The oxygen saturation levels were best measured from his ear. His nasal canula must be cleaned and checked to be certain that it is in the correct position the doctor has ordered that this patient receive physical therapy in order to prevent problems that occur with immobilization. The patient should try to get out of bed and move around as much as possible. However, due to W. K.'s confusion and left sided weakness, he is very likely to fall. This patient needs to be turned every 2 hours when in bed. He also has to wear moon shoes to prevent heel damage. W. K. uses a Foley catheter to prevent falls on the way to the bath room and accidents associated with incontinence. The doctor has ordered a restraint to be placed across the patients waist in order to prevent him from getting out of bed on his own and falling. This restraint order must be signed daily by the doctor and the nurse has to verify his daily signature.

Since this patient cannot swallow, mouth care is important in order to prevent debris from collecting in his mouth. Swabs are used to remove any excess debris from his mouth. W. K.'s oral membranes need to be kept moist to promote comfort.

## **VI. Nursing Care Plan**

W. K.'s nursing care plan's physiological mode addresses his physical mobility impairment related to his neuromuscular impairment. The patient was assessed to have suffered a CVA. Due to his CVA, W. K. is uncoordinated and has jerky movements. He is totally dependent and cannot participate in any activity without assistance. He has a waist restraint, and a sitter that comes in from 11pm to 7am. He has some reddened areas on his spine, iliac, and sacrum. Mr. K. also has moon shoes to prevent heel breakdown.

The nurses plan to prevent complications such as contractures, venous stasis, thrombus formation, skin break down, or hypostatic pneumonia throughout his hospital stay. Patient or family members will carry out mobility regimen after discharge from the hospital. Patient or family member will make plans to use resources to help maintain his level of mobility before discharge from the hospital.

Range of motion exercises are to be performed to joints, unless contraindicated. These exercises should progress from passive to active as the patient can tolerate.

- These exercises will prevent joint contractures and muscular atrophy. (Sparks and Taylor 2001)

The patient should be turned and positioned every 2 hours. A turning schedule should be established because this is a dependent patient.

- This prevents skin breakdown by relieving pressure. (Sparks and Taylor 2001)

The physical therapist will develop the mobility regimen.

- This is to help rehabilitate musculoskeletal deficits. (Sparks and Taylor 2001)

The family members will be instructed in ROM exercises, transfers, skin inspection, and the mobility regimen.

- In order to help prepare the patient for discharge. (Sparks and Taylor 2001)

The physical therapist will demonstrate the mobility regimen and note the date. The patient

and family members will then demonstrate the mobility regimen to ensure continuity of care and the use of proper technique. The date of this demonstration will be noted. W. K. has not experienced any pressure ulcers while being hospitalized.

The self concept mode diagnosis is that the patient exhibits hopelessness related to a failing or deteriorating physiologic condition. His emotional status is one of a sense of hopelessness. He stated that “there is no reason left for him to be here”. He exhibits lack of control over self care. His current situation is a severe state of weight loss. His daughter is in hospice. He has loss his appetite, his daughter, and his wife. He suffers from depression.

The patient will require rest and an appropriate activity pattern while hospitalized. The patient will be helped to identify factors that make him feel more hopeful in two days. The patient will demonstrate more effective communication skills, which include direct verbal responses to questions and increased eye contact before being discharged.

The medical regimen designed for the patient will be followed.

- This will manage his physiologic condition and increase his potential for recovery. (Sparks and Taylor 2001)

The family members and patient will be involved in care planning and the patient will be allowed to choose his degree of self-involvement.

- The cognitive disturbances associated with anxiety or depression prevents the patient from making healthy decisions. (Sparks and Taylor 2001)

Comfort measures will be used to complement his prescribed medications.

- In order to induce relaxation. (Sparks and Taylor 2001)

The patient will receive help in mobilizing his resources before being discharged. This includes contacting family members and scheduling follow-up appointments with referral groups such as hospice. The patient and family members should be left with a sense of future direction. The patient will be able to discuss feelings of hopelessness openly.

Role function mode- the patient suffers from a verbal communication impairment related to decreased blood circulation to his brain. Therefore, his ability to speak has decreased, and his ability to understand verbal communication has decreased. He is unable to use words appropriately. His level of consciousness has decreased and he is disoriented. His major form of communication is a nod. He has difficulty expressing thoughts, verbally. He has aphagia.

Patient and family will express satisfaction with level of communication skills during W. K.'s hospital stay. Patient will maintain his state of orientation throughout hospital stay. Patient will maintain an effective level of communication before discharge from the hospital.

Monitoring and recording changes in speech pattern or level of orientation must be done for this patient.

- Changes may indicate improvement or deterioration of condition. (Sparks and Taylor 2001)

While communicating with W. K. the nurse needs to speak slowly and distinctly in normal tone when addressing the patient, and stand where patient can see and hear you.

- These actions promote comprehension. (Sparks and Taylor 2001)

Reorient W. K. to reality by: calling him by name, telling him your name, and giving him background information.

- These measures develop orientation skills through repetition and recognition of familiar objects. (Sparks and Taylor 2001)

Use short simple phrases and yes or no questions when patient is very frustrated.

- This is to reduce frustration. (Sparks and Taylor 2001)

Allow ample time for response. Do not answer questions yourself if W. K. has ability to respond.

- This improves patient's self-concept and reduces frustration. (Sparks and Taylor 2001)



The outcome should conclude that patient and family members are communicating at satisfactory levels. The patient communicates effectively ten times daily.

Finally, the interdependence mode of the nursing care plan follows the last nursing diagnosis for this patient. Social interaction impairment related to altered thought process. Because of the CVA W. K. now has an insufficient quantity of social exchange.

His family reported a change in his style of interaction, W. K. also has a history of presbycusis associated with old age.

The plan of care for Mr. K. include, he will remain free of injuries throughout hospital stay. Patient and family members will report concern about difficulties in social interaction throughout hospital stay. Patient and family members will participate in care and prescribed therapies throughout hospital stay. Patient will regain appropriate neurological function to extent possible before discharge. Lastly, patient and family will identify and mobilize resources for rehabilitation and discharge planning as necessary.

The nurse needs to take precautions to ensure safe and protected environment providing side rails, and use of physical restraints as necessary.

- This reduces potential for patient injury. (Sparks and Taylor 2001)

W. K. needs to receive positive reinforcement for appropriate and effective interaction behaviours (verbal and nonverbal).

- This helps patient recognize progress and enhances feelings of self-worth. (Sparks and Taylor 2001)

W. K. and his family members need to be assisted in progressive participation in care therapies.

- This reduces feelings of helplessness and enhances patient's feelings of control and independence. (Sparks and Taylor 2001)

## VII. Teaching Plan

Nurses have an ethical responsibility to teach their clients. (Potter 1999) The nurse should anticipate client's needs for information that clients and their family members need. W. K. and his family members need to be educated about the safe and effective use of medication, according to law and their needs. Mr. K's family also needed to be educated about proper positioning of the patient, and rehabilitation techniques to help him function more independently in his environment. I felt that they also needed to be informed about access to additional resources in the community, and lastly about when and how to obtain any further treatment W. K. may need.

I asked Mr. K. questions that could define his motivation to learn, lack of motivation seriously threatens the success of the teaching plan. (Potter 1999) Because of Mr. K.'s condition he has to be taught while he is alert and rested. It is also important that there is complete focus on his wellness and strengths. Also his teaching sessions need to be kept short to maintain complete alertness.

Knowledge deficit related to psychomotor dysfunction is the best nursing diagnosis that relates to this patient. The main goals for W. K. is that he takes his medication properly, he is provided with the proper care for his condition, his skin integrity remains intact, and the family contacts hospice when necessary so this patient can die peacefully.

I involved the patient by teaching him how to position himself to prevent pressure ulcers, and having him to demonstrate this back to me. We also performed range of motion exercises that the patient also demonstrated sufficiently. This is an important measure to prevent contractures.

I implemented my teaching plan through reinforcement. When W. K. seemed to be understanding, I provided him with positive reinforcement. This can ensure me that after the teaching he will still perform proper behaviour to maintain his health. The effectiveness of

my teaching was based on W. K.'s feedback. From his feedback I would consider my teaching very effective.