# Integrated Nursing Practice

Student's Name

Institutional Affiliation

Course Number: Course Name

Instructor's Name

Due date

## Integrated Nursing Practice

People's susceptibility to disability and illness increases as they age. Unhealthy childhood lifestyles are detrimental to one's health condition and may lead to untimely death. For instance, Brian Nolan's smoking habit has instigated illnesses such as Deep Vein Thrombosis (DVT) and hemiplegia. DVT involves blood coagulation in a limb vein, mostly the thigh or calf (Waheed & Hotwagner, 2018). The condition is observed through swelling and pain on the appendage. Similarly, hemiplegia is a health issue that develops due to spinal cord or brain damage that paralyzes either side of one's body (Li, Francisco & Zhou, 2018). The condition instigates muscular stiffness, poor muscle control, and weakness. Nonetheless, the health burden among older people can be alleviated or prevented through person-centered care and nursing interventions that solve each patient's social, psychological, and physical requirements.

## Assessment

### Deep Vein Thrombosis

The prevalence of DVT is between 10% to 20% in general health clients, 20% to 50% in clients who have suffered from a stroke, and as high as 80% in terminally ill clients. Consequently, Nolan's stroke has led to the emergence of the DVT condition. Virchow's triad describes DVT's pathophysiological mechanisms as hypercoagulability, blood flow disorder, and vessel wall damage. Ideally, clotting is a protective process that averts blood loss and encloses injured blood vessels. Thrombosis is stabilized or counteracted by fibrinolysis, as enzymes break down the fibrin in blood clots (Waheed & Hotwagner, 2018). The causes of venous thrombosis are often dependent on many factors, as the elements of Virchow's triad lead to different conditions in each client. However, they all instigate early blood clots in the interior surface of

lymphatic and blood vessels. This instigates the adhesion of the endothelium and leukocytes and prompts local cytokine production, processes that lead to deep vein blood clots. The occurrence of thrombus propagation is contingent on the relative balance between thrombolytic and coagulation pathways. DVT's occurrence is apparent in Nolan's low-flow region and lower appendage below his right knee, including behind venous valve pockets and the soleal sinuses.

Despite the lack of clarity regarding the exact cause of DVT, various mechanisms have a meaningful impact on its development. Poor perfusion causes venous stasis because blood flow reduces as skeletal muscle contractions decrease and veins dilate. Second, impaired or damaged blood vessels establishes a section for clot formation. Various thrombi in the veins instigate inflammation, a state known as thrombophlebitis. Third, blood clots are the aggregation of platelets adhered to the venous wall that appear tail-like, consisting of red blood cells, white blood cells, and fibrin (Waheed & Hotwagner, 2018). Besides, the "tail" develops or propagates towards the flow of blood as subsequent layers of blood clots aggregate. The blood clot fragments spontaneously through high venous pressure or natural dissolution. Finally, following a severe DVT incidence, the vessel's lumen recanalizes.

**Hemiplegia**

When hemiplegia occurs in adulthood, it is referred to as acquired hemiplegia. The condition is non-progressive, as its symptoms do not worsen after its occurrence. Hemiplegia is evident in Nolan's case, as the right side of his body has been affected. The left side of his brain was affected, causing the symptoms to be observed on the left side of his body. Patients experience distinctive signs of hemiplegia contingent upon its severity. The signs include challenges holding objects, poor balance, difficulty walking, poor fine motor skills, muscle spasticity, and muscle stiffness or weakness on one side (Li et al., 2018). Besides, stroke is the

prevailing cause of hemiplegia, as it destroys one section of the brain's corticospinal tracts. The corticospinal tracts run from the cerebral cortex to the lower spinal cord. Further, due to the tracts' decussation in the brainstem, affliction in the left cerebral half paralyzes the body's right side. When a right-handed patient's left hemisphere is damaged, they may develop aphasia.

Hemiplegia instigates various muscular problems, such as muscle cramps, spasticity, and muscle atrophy. Patients with hemiplegia often lose muscle tissue on the side affected by paralysis (Caglar et al., 2016). This is a common aftereffect of long periods of muscle inactivity. Moreover, spasticity occurs when the brain sends periodic signals to the paralyzed muscles of a hemiplegic patient. This state is perceived as involuntary muscle tension, hyperactive reflexes, and sudden uncontrolled motion. Hypoesthesia occurs as the patient's brain loses its ability to send signals to the paralyzed part's nerves. The severity of the hemiplegia determines the level of hypoesthesia, where an acute case results in complete loss of sensation. Furthermore, pusher syndrome develops as the patient losses their postural balance and tends to lean on the weakened or paralyzed side. The patient believes that tilting towards the hemiplegic side is "straight," making them likely fall over or form sores. Last, difficulty in speaking is often observed in patients as the damage that resulted in their loss of control or strength of the hemiplegic side may affect their communication ability.

## Interventions

Nursing interventions involve actions and actual treatments that enable a patient to attain the health objectives established. The nurse utilizes their critical-thinking skills, experience, and knowledge to determine interventions most suitable for the patient.

### Interventions for Deep Vein Thrombosis

**Help Nolan gain sufficient knowledge.** Determine Nolan's awareness of the prevention, treatment, and causes of DVT. This knowledge provides an essential starting point for the teaching process. Subsequently, inform the DVT patient of the symptoms of pulmonary embolisms, such as tachypnea, tachycardia, unusual chest pain, breathlessness, and restlessness (Waheed & Hotwagner, 2018). These signs may be instigated by an embolus that detaches from the initial thrombus in the leg and moves to the lung. Second, notify Brian to take medicine such as anticoagulants as instructed, stating their aftereffects, dosages, and actions. Accurate and reliable information reduces the probability of future problems. Similarly, advise Nolan on the importance of frequently seeking laboratory tests while taking oral anticoagulation drugs. Habitual coagulation observation is vital in ensuring that a therapeutic effect is achieved and inhibits the recurrence of thrombi.

At the same time, show Nolan how to discern excessive anticoagulation symptoms. The patient must learn how to self-manage his illness, as determination promotes timely medical care. Alternatively, teach Brian how to remain safe during anticoagulant treatment, such as using a soft toothbrush and an electric razor. These safety procedures decrease the bleeding risk. Further, inform the patient to refrain from massaging his leg. This will ensure that no embolus detaches from the initial thrombus. Finally, guide Nolan on the proper use of compression stockings. Improper stocking use may prevent blood flow and cause coagulation.

**Manage Nolan's acute pain.** Evaluate the client's level of pain and discomfort. The level of pain hinges on the degree of edema from clot formation, the extent of tissue ischemia, inflammation process, and degree of circulatory deficit. Variations in pain levels signify the developing complications. Second, scrutinize complaints of sharp and abrupt chest pain, followed by apprehension, tachycardia, and dyspnea, or the emergence of new pain from a

different vascular site (Waheed & Hotwagner, 2018). These signs indicate pulmonary embolism, a problem associated with DVT. The condition would necessitate timely medical therapy. Third, observe vital signs, with emphasis on temperature changes. An elevated heart rate signifies an increase in inflammation, fever, or discomfort. Moreover, ensure Nolan adheres to bed rest while in the acute stage. This controls discomfort related to muscular movement and contraction. Last, advise the patient to change positions regularly. This enhances circulation, reduces muscle spasms, and alleviates fatigue.

**Interventions for Hemiplegia**

**Nolan's impaired verbal communication.** Pay attention to Nolan's communication errors and offer feedback. Providing feedback enables him to recognize the communication barrier and provides a chance for necessary clarifications. Second, determine expressive aphasia by pointing at various items and asking Brian to identify them. However, he may recognize an object but fail to name it. Furthermore, test for dysarthria by having the client make familiar sounds, such as "shh," "meow," and "woof." This assessment establishes how the motor components of speech, such as breath control, lip movement, and tongue, influence articulation (Caglar et al., 2016). Equally, request the client to write a sentence and his name. If incapable of writing, have him read a sentence. Examinations for alexia and agraphia are also measures of expressive and receptive aphasia.

On the other hand, compose and post a notice at Nolan's room and nurses' station concerning his communication challenges. In addition, equip the patient with a specialized call bell that can be efficiently used with the slightest pressure. Similarly, present alternative forms of communication, such as pictures or writing. This addresses Brian's communication shortcomings. Communicate to the patient using normal tones refrain from fast speech. This

provides adequate time for Nolan to respond. Moreover, the client should not be pressured to respond. He has generally not lost his hearing ability, so loud communication would only irritate him.

**Self-care deficit.** Desist performing tasks that Nolan can do himself and help only where necessary. The client needs to be as independent as possible to enable recovery and promote self-esteem (Basu et al., 2015). Second, take note of impulsive behavior that portrays impaired reasoning. Such an instance would require additional care to ensure Brian's safety. Besides, uphold a positive and supportive attitude. Designate enough time to the client for task completion and exhibit a high level of empathy while administering care. Give positive comments for progress and achievements. This establishes independence, promotes self-worth, and instigates more recovery goals.

Further, formulate a plan to accommodate visual challenges. Lay utensils and food on a stand related to Nolan's non-hemiplegic side. Ensure the bed is strategically positioned to allow the client to have a clear line of sight to the room's surroundings. This would promote Nolan's mobility when he intends to move around and ensure he can see the food served to him. Last, administer self-help equipment. For instance, shower chair, leg bag for catheter, drinking straw, long-handled brushes, and toilet risers. This enables self-care, self-esteem, and independence.

## Evaluation

Following the implementation of the interventions or regimen, an evaluation must be conducted to determine their effectiveness. The nurse should monitor Nolan's situation and progress towards objectives and adjust the treatment plan where necessary.

**Evaluating the progress of Deep Vein Thrombosis**

Nolan should have the capacity to verbalize comprehension of DVT, its prevention, and treatment (Waheed & Hotwagner, 2018). The patient should also affirm that discomfort and pain have been alleviated. Moreover, Brian should express the approaches that promote relief. Last, the patient should portray a relaxed demeanor where he can rest and undertake various tasks when needed.

**Evaluating the progress of Hemiplegia**

Nolan should demonstrate a comprehension of the communication issues. The client should also determine the most effective form of communication to express his ideas. Third, Brian should employ resources aptly. The patient should display lifestyle advancement that matches his self-care requirements (Basu et al., 2015). Equally, Brian should accomplish self-care tasks within his capacity. Finally, the client should recognize community and personal resources useful to his needs.

## Conclusion

Despite the prevalence of diseases, such as DVT and hemiplegia, among the elderly, the burden is manageable. Nolan's health issues may be countered through nursing interventions, including providing relevant knowledge, solving impaired verbal communication, alleviating pain, and enhancing self-care. These interventions solve Brian's social, psychological, and physical requirements. Therefore, the nurses have an essential role in safeguarding and improving the lives of older adults suffering from various illnesses.

## References

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