

Capstone Project

Abstract

Deep vein thromboembolism remains one of the deadliest diseases with high mortality and morbidity rates across the entire world. Currently, different methods are used to treat the disease. The two commonly used methods include mechanical and prophylaxis methods. In other cases, a combination of the two methods are utilized. The use of the different methods varies depending on the medical practitioner treating the condition. As a result, there is no effective standardized tool that could be used to treat the above condition taking into consideration that other many factors such necessary in the management of the disease. This paper proposes the use of a standard tool that will be used to treat the condition. The standard tool takes into use the prophylaxis method, -mechanical or prophylaxis, family and patient considerations in the management of the disease and addition of new evidence into the standard tool. The Anchored instruction theory forms the basis for the addition of new information to the standard tool. The application of this new tool will require nurses and other medical practitioners to be educated on its specifics. Nurses will also be taught on how to incorporate evidence-based practice information in the development of the new tool. Family members are also to be educated on managing the condition. A method for disseminating information on the new tool will also be utilised so that there is awareness on the management of the disease condition. This new tool could prove effective in reducing the cases of deep vein thrombosis and as a result, have better health outcomes to different populations.

Problem Description

Deep venous thromboembolism remains one of the deadliest diseases across the world with estimated morbidity and mortality rates. Currently, the disease kills about 500,000 people in the United States alone (Kesieme, Kesieme, Jebbin, Irekpita, & Dongo, 2011). Deep venous

thromboembolism is commonly associated with the formation of blood clots during the normal physiologic process preventing the spread of important nutrients and gasses to essential parts of the heart. It is more common in individuals who have undergone surgery, trauma or have an inherent physiologic disorder. In some cases, it is commonly associated with certain disease conditions such as tumors (Heit, 2007). The treatment and management of the condition is commonly applied to a variety of different methods. The common methods being utilised today include the use of prophylaxis methods. These are the use of mechanical prophylaxis methods with the most common methods being the use of mechanical compressions. Pharmacologic methods involve the use of drugs such as heparin and low molecular weight warfarin (Heit, Spencer, & White, 2016). In some case, the two methods are commonly combined. The above methods are selected independently in different clinical settings, and as a result, the management of the disease condition varies across different settings.

Essentially there lacks a standardized tool for the management of the above disease condition. Also, the management of the disease does not follow some common standard protocol that could be applied as the first form of treatment across different settings. Furthermore, it fails to utilize the existing evidence-based practice information from recent literature sources that indicate effective and new methods of treatment of deep venous thromboembolism. It also fails to address the needs of the family members and patients as they also have a part in the management of the condition across different settings and more so when it comes to a decision-making process. In essence, the management of the disease condition fails to incorporate multifaceted ideas that will prove effective in the management of the disease condition.

Without the presence of a standardized tool that could serve as the main guide in the management of the disease condition, medical practitioners will utilize different tools. These tools have been shown to have different treatment rates. Different studies indicate the preference of different methods in managing the disease condition. Some studies indicate that

pharmacologic prophylaxis is an effective method of treatment compared to mechanical prophylaxis while other studies indicate the effectiveness of the combined method of prophylaxis that combines two methods (Sobieraj et al., 2013). As a consequence, different methods have been applied in the management of the condition with diverse results in the process causing varying recovery rates in the management of the different conditions. Other studies indicate that different prophylaxis methods should be used for patients undergoing surgery at different rates (Lyman et al., 2013). As a consequence, there is a direct lack of information on the treatment and management of patients suffering from deep venous thromboembolism. Research in the above area provides new information that could be used in the management of the above disease condition. This information needs to be incorporated in the treatment methods. The lack of incorporation of new proven methods means fails to utilize the new method of treatment that could be applied in the management of the above condition.

Solution Description

The development of a standardized tool to aid in the management of the disease condition will provide the multifaceted approach required in reducing the rates of the disease across different populations. This multifaceted approach takes into consideration several important factors that normally determine the management of the disease condition. First, it involves the establishment of a nursing tool that will serve to be used as the standard operating protocol for medical practitioners in different settings. This standard operating procedure will identify the exact type of prophylaxis method to be utilised to specific classes of patients based on the evidence-based practice information. Since there are already three methods of application with proving effective rates for different conditions, the standard tool will provide information on whether medical practitioners should utilize mechanical or pharmacological prophylaxis and the exact method that they utilize and under what circumstances (Qaseem, 2011). It will also specify when they need to

use combined method of prophylaxis and when to update the standard protocol based on the new evidence-based practice that has been confirmed by the relevant body. The development of the standard tool will serve as the baseline for all forms of treatment with changes being implemented at specific rates. The new standard tool will also provide information to all patients and their families especially when it comes to a decision-making issues regarding the form of treatment (Qaseem, 2011). Ideally, in some cases, patients are required to follow up on specific forms of treatment. Also they are required to follow the provided regimen required in completing the treatment after leaving the medical institution. This will effectively ensure that the regime is followed to the latter. Since nurses are the main applicants in the management of different prophylaxis methods, they will have to be educated on the development and applicability of the new standard tool. They will also be educated on how to apply the new evidence base practice information collected from different research findings.

This solution provides a unique way of dealing with the condition. First, it ensures that a standard method is readily applicable to the management of the disease condition. Whenever patients with deep vein thromboembolism or those predisposed to the disease undergo any form of treatment such as surgeries there is an elaborate method that has been specified to deal with their condition. This ensures that medical practitioners have an elaborate treatment plan for any case of deep venous thromboembolism that may happen at any given location. This in itself is a method of ensuring that the management of the disease condition is more elaborate and effective. In other words, there is a post planned method for treatment of all patients that are predisposed to conditions related to deep venous thromboembolism (Morris, 2011; National Institute for Health and Clinical Excellence, 2010; Sobieraj et al., 2013). This method will significantly reduce incidences of deep venous thromboembolism especially those originating from surgery like conditions. Also the use of evidence-based practice information collected from new articles may help improve the treatment method by specifying the drug combinations that could be utilised

during pharmacological prophylaxis and the exact mechanical prophylaxis method that could be used in the management of the disease condition (Restrepo, Jameson, & Carroll, 2015). Also, specific information from research articles will identify the specific time of application of any treatment method as well as the views of the patients in the managing the disease condition. As a result, some cases associated with deep venous thromboembolism will drop as a result of the application of the nursing tool.

The above proposal is based on the Anchored Instruction theory that was proposed by the John Bransford. This approach involves the incorporation of new materials to an existing baseline known as the anchor material. In this case, the anchor to be utilized is the standard protocol that will have been developed. Any new information on evidence-based practice that provides new method of treatment of deep venous thromboembolism. Most nurses and other professionals will be taught on all matters relating to the baseline or anchor point. This will involve information on the prophylaxis methods and the effect of timely treatment as well as decision making approaches for family members and patients (Heit et al., 2016; McCabe & Browning, 2010). More information will be provided from the anchor point and taught to the nurses, patients and family members.

Implementation Plan

The implementation plan follows various phases. It will involve the collection of materials containing the relevant information regarding the development of effective nursing tools. This includes collecting information relating to the use of both prophylaxis method utilized in different approaches and different conditions. Information on mechanical prophylaxis, pharmacological prophylaxis, and combines approaches will be investigated in detail and form the basis of formation of the standard tool. The second phase is educating the nurses on the

application of the standard tool. Nurses will be taught on the importance of timely administration of the different prophylaxis method and specific disease conditions in which the administration of the condition will be deemed as necessary or important (Heit, 2007). Nurses will also be educated on how to implement new evidence located in educational materials such as journal articles. Nurses will be trained on both the theoretical and practical aspects so that they have in-depth information and knowledge on how to handle all cases that relate to deep venous thromboembolism.

. Family members and patients will be informed of the need to control the above disease condition. This will necessarily involve the provision of information on how to control the above disease condition inside and outside the clinical settings. Information will be collected on all family members regarding the past medical conditions of their patients. In most cases, some individuals are predisposed to certain medical conditions. A good example is in individuals who has cancer and may genetically inherit the disease conditions. Other common cases in families involve families that suffer from disease conditions such as those suffering from deficiencies in Vitamin K and other important factors associated with blood clotting (Heit, 2007). Information provided by the family members will be useful in determining whether the diagnosis provided to the patient and the management of the condition

Different resources will be used in the implementation of the above solution. The development of the standard tool is associated with several aspects including decisional support, application of different standardization theories, and education to family members, patients, and families as well as assessing different risks. Some resources required in educating patients and their families will primarily involve the use of educational materials such as educational fliers on deep venous thromboembolism (Bradley, McSherry, & McSherry, 2010; McCabe & Browning, 2010). Most materials utilized in the above case will be visual in nature so that the patient family members can comprehend the information in a faster method. Educational teaching for the nurses

and other players in the medical field will be slightly different as it will involve the development of the standard tool. Nurses will be taught on the different mechanical prophylaxis methods that are currently inexistent. After this, they will be taught on pharmacologic prophylaxis method and the method to apply in the management of the different disease conditions. This will primarily involve the application of different drugs based on the available research. Nurses will also be educated on the specific times they are supposed to apply specific forms of treatment and the different methods that will be used to assess the effectiveness of the treatment method. To assess the amount of information present in both the family members and nurse, it will be important to collect and evaluate the amount of information present in the above parties (Bradley et al., 2010; McCabe & Browning, 2010). For nurses, information on their method of treatment will be collected and analyzed. Their level of understanding of the applicability of different method will also be analysed in totality. A similar evaluation will be conducted among patients.

Evaluation Plan

The evaluation plan takes some aspects into consideration. First, it evaluates the methods utilized in determining the effectiveness of the proposed solution. The first method that will be used in the above case will be an analysis of the average discharge rate for all patients who are suffering from any disease condition associated with deep vein thromboembolism. The effectiveness of the standard tool will be determined by looking at the discharge rates for patients suffering from the above condition and measuring the discharge rate before the application tool was applied. With time the effectiveness of the method will be determined by investigating the total number of cases across different clinical settings. This will show the ultimate effect that the standard tool has in the management of different disease conditions across different settings. The nurses and other medical practitioners will also be investigated to determine their awareness levels before and after the application of the specific form of the standard tool (McCabe &

Browning, 2010; National Institute for Health and Clinical Excellence, 2010; Rahn et al., 2011).

In addition, the same method of analysis will be applied to all patient and their family members to investigate their level of awareness on the applicability of the new tool under investigation.

Apart from looking at the different method of evaluating the effectiveness of the above methods,

an analysis will also be carried out to determine variables that play an important role in the management of the condition. In this case, since nurses remain the main major players in the application of this new tool, their perceptions and attitudes in regards to the implementation of

the above project will be investigated. It is important to investigate whether the application of

the new tool will have a negative effect on the nurses since they have other roles to play in

healthcare settings (Heit et al., 2016; McCabe & Browning, 2010). It is also important to

investigate their attitudes and perceptions in applying a new method since they have been

generally used to applying a different method in the treatment and management of the above

condition. The second variable will be the level of education of the nurses. In essence, the new

tool will have an assessment period where new information presented from different sources will

be incorporated into the study. The higher the level of education of various nurses and the

amount of experience are the more efficient and effective they become in the application of a

standardized tool. Therefore, the level of education and the experience levels will be an

important role in determining the effectiveness of the above standardised tool.

Several different tools will be used during the entire process. Some commonly utilized tools

include the use of flyers and other educational materials such as textbooks in passing the above

information. This will be very essential for the nurses who have to understand the different

prophylaxis method. Patients and their family members will be provided with flyers and posters

indicating the method used to treat the condition and the effects of deep venous

thromboembolism. This way they will have sufficient information on how to handle the above

case and report any causes that link deep venous thromboembolism to any inherent problem with

family settings (McCabe & Browning, 2010). Other important tools utilized to assess both the nurses and members of the family include the use questionnaires and surveys that collect primary data from both the parties. This information is used during data analysis especially in evaluating the effectiveness of different method that are currently being used not only in the treatment but also in the management of different conditions related to deep venous thromboembolism.

Disseminating Plan

Disseminating the information is the last part of the project. This involves passing of information to members of the public and other stakeholders in a bid to increase their awareness and reduce the number of cases associated with deep venous thromboembolism. Essentially, two methods would be utilised in disseminating information to people across the board. The first will involve disseminating information to members of the public and other stakeholder while the second method will involve disseminating information to nurses and other medical practitioners (McCabe & Browning, 2010). The two groups have a different method of understanding complex scientific information. For the case of key stakeholders and members of the public, the information needs to be quite simple and elaborate. In most cases, this information is provided in visual forms. Another common method of reaching a higher population will be spreading the information through social media sites through the use of different sites such as Facebook, Twitter, and YouTube (Bradley et al., 2010). In this case, videos could be made for members of the public showing the causes of deep vein thrombosis and method used to prevent the condition across different healthcare settings. PowerPoint presentation are commonly made of all stakeholders. Similarly, they contain information presented in a visual manner and follows specific objectives. These methods are more elaborate and simple for the general population to understand especially when it comes to a matter relating to deep vein thromboembolism. When it comes to dealing with nurses and other medical practitioners, the mode of presentation is

different compared to presentation to members of the public. In this case, information is passed through in scientific literature forms with the most common form being the use of peer-reviewed articles (Bradley et al., 2010). These articles provide recent information on all the available scholarly works that have been done in the recent years and do substantially contribute information on the treatment and management of the above condition. Conferences and seminars are also commonly organized by members of the scientific community to present and explain their findings to all members of the public. This way more information is added regarding the existing gaps in most of the today's literature work and new areas that require research can be investigated and applied in the healthcare and other clinical settings.

Conclusion

The management of deep venous thromboembolism requires a multifaceted approach whereby all factors that have the potential of affecting patient's outcomes are analyzed and put into consideration. The above approach provides a method that does not only look at the treatment methods that are available but also how new research could be added to improve the currently existing tool. Also, the tool provides for a specific method of evaluating all the variables in disease conditions. It takes into consideration the specific methods that could be used to disseminate information regarding deep venous thromboembolism to not only the stakeholder but to all members of the society so that there is increased awareness on how to control the above condition. Also the anchored approach seeks to provide a method of adding new information to currently availed treatment methods so that everything is up to date.