Heart Failure: Literature Review

Christine Nlandu

Lakeview College of Nursing

Dr. Ariel Wright

06/04/2021

Heart Failure: Literature Review

According to Hinkle and Cheever (2018), more than 85.6 million Americans have one or more types of cardiovascular diseases. Cardiovascular illness is one of the leading causes of death for men and women in the United States. Cardiovascular disease affects people from diverse racial and ethnic backgrounds. Additionally, one of the most severe complications of heart disease is heart failure. *Heart failure* is a clinical disorder that occurs when the structural or functional effects of cardiac disorders compromise the heart's ability to receive or pump blood. In other words, heart failure is a chronic, progressive condition that results from certain diseases, including hypertension, coronary artery disease, valvular disorders, cardiomyopathy, and renal impairment associated with fluid overload. Heart failure monitoring is essential to nursing because it is a preventable disease. Nurses working with clients in any setting, including home, office, long-term care, hospital, or rehabilitation, must assess the cardiovascular system, identity specific prevention, and treatment strategies. A literature review's purpose on heart failure is to decrease the progression of the disease, which decreases hospitalization and risk of death.

Fluid Balance Monitoring in Congestive Heart Failure Patients in Hospital: A Best Practice Implementation Project

This article focuses on the assessment of fluid balance in clients with heart failure. Participants were fifteen nurses who participated during ward in Taiwan and twelve patients. A team collected data before and after discharge to understand gaps and barriers, which allowed them to get the final plan. To determine hydration status, the team used fluid charts along with physical assessment and electrolyte checking. At the beginning of the study, fluid status monitoring was 58%, and at the end, it was 100% (Yang et al., 2019). This result demonstrates

that nurses did not take the assessment seriously because they did not monitor the fluid status of all clients admitted with heart failure. Thus, Nurses who work in any health care facility should assess fluid status for any client presented with heart failure to develop an individual care plan. This study aims to encourage routine monitoring of fluid balance in clients with heart failure to improve the quality of care.

Key Points

Fluid status monitoring has less priority than other nursing actions, which results in inaccurate fluid balance charts. This article explains that most fluid status records are inaccurate because intake and output recorded did not match up with the signs and symptoms of clients (Yang et al., 2019). Because of the inadequate fluid checking, the team used JBI recommended procedure for fluid balance assessment. In addition, the study shows that inaccurate fluid status documentation compromises clients' safety and the quality of care. The health care staff education about fluid status monitoring and documentation was 53% (Yang et al., 2019). This statistic demonstrated that nurses used inappropriate assessment and documentation for clients with heart failure. So, nursing should implement fluid monitoring and use the correct documentation to provide appropriate care.

Assumptions

When monitoring fluid balance status, nurses must assess daily body weight, vital signs, edema degree, respiratory pattern, electrolytes monitoring, input, and output. After the assessment, it is imperative for nursing to document findings in the proper charts. Additionally, it is necessary to educate nursing staff on fluid balance monitoring and charting skills. It is also

essential to educate clients and their families on fluid monitoring and self-care because clients' involvement improves the outcome. Research shows that educating clients on fluid balance monitoring at home improved compliance from 42% to 58% for the first follow-up (Yang et al., 2019). Therefore, educating nursing staff and clients on fluid balance monitoring result in positive outcomes.

Deficit/Conclusion

Fluid balance monitoring is an essential component of nursing care to develop an individual's care plan. Nursing should monitor the fluid balance in every client admitted with heart failure and use accurate charting. Also, it is vital to educate clients and their families to monitor the fluid status at home and self-care. Implementing these assessments and documenting finding allow nursing staff to provide appropriate care clients needed. If the nursing staff fails to implement fluid balance assessment and routine documentation, nursing action will compromise clients' safety and quality of care (Yang et al., 2019).

Implementing a Nurse Discharge Navigator: Reducing 30-Day Readmissions for Heart Failure and Sepsis Populations

This article focuses on preventing unplanned readmissions of clients with heart failure 30 days following discharge. Data obtained from the case management, and they questioned clients 24 to 48 hours following discharge. In this study, 28 participants were 55 years old or older and English speakers. Twenty-four participants were diagnosed with heart failure; six of them came back to the hospital within 30 days after discharge (Weeks et al., 2020). A quarter of all clients admitted with heart failure went back to the hospital within 30 days. Therefore, nurses need to

focus on the prevention of unexpected rehospitalization 30 days following discharge. The importance of this article is to evaluate the influence of nursing discharge guidelines on the reduction of 30 days for heart failure clients.

Key Points

Hospital readmissions are costly and impact clients' outcomes. The author stated that the 30-day unplanned readmission cost was 20 billion in Medicare alone (Weeks et al., 2020). To penalize hospitals that have high-rate readmissions within 30 days, Medicare reduces their payment. The authors also reported that clients who have heart failure are at high risk for unexpected 30 days readmissions and nursing discharge navigator plans were to reduce 30 days rehospitalization following discharge (Weeks et al., 2020). However, Medicare does not pay hospitals that have many rehospitalization cases because readmission is expensive. Creating a complete discharge plan will reduce readmission, which impacts clients 'outcomes and costs.

Assumptions

Reducing 30 days of readmission when implementing a nursing effort is possible. In 2018, readmission within 30 days of Medicare clients aged 65 and older was 14.9 % in the United States (Weeks et al., 2020). During this study, the percentages of heart failure readmission were higher than those in 2018. It means that it is possible to improve the care of heart failure to avoid rehospitalization. Thus, when reducing rehospitalization, it is necessary to consider a comprehensive discharge plan consisting of certainty about prescription, an effort for disease management, improving medication education or providing sufficient instruction to clients and their families, and organizing follow-up (Weeks et al., 2020).

Deficit/Conclusion

Preventing 30-days of readmission following discharge decreases the cost and improves clients' outcomes. In order to obtain a better outcome, it is necessary to establish a complete discharge plan and administer appropriate treatment. It is essential for nursing to release clients only when they are stable and can care for themselves at home. Giving relevant information to clients and their families about their nutrition, medication and respecting follow-up appointments before discharge increases patient outcomes. If nursing fails to accept the implications, it will increase rehospitalization, which increases Medicare costs, and affects clients' outcomes. Also, Medicare penalizes hospitals with a high rate of unexpected readmission (Weeks et al., 2020).

Pharmacologic Heart Failure Treatment: A Case-Based Review of Current Guidelines

This study focuses on the pharmacologic treatment guidelines of heart failure. The article used three case study scenarios to demonstrate the complexities of treatment managing heart failure. All three clients were diagnosed with heart failure and were symptomatic. The study shows that the medications of the three clients were changed, and all of them show considerable improvement (Albert & Lindstrom, 2021). The client, in case one, is DL. DL used to take carvedilol, which switched to metoprolol succinate, and spironolactone to eplerenone. The second case was CP. CP's medication was lisinopril changed to sacubitril/valsartan and DPP-4 inhibitor to SGLT2inhibitor. The provider increased the dosage of furosemide, carvedilol, and spironolactone. The third client is GL. GL's 'medication was changed as well; Valsartan switched to sacubitril/valsartan. The physician increased the dose of furosemide, metoprolol succinate, and ivabradine. In addition, clients had symptoms like edema, high blood pressure, crackles, dyspnea resolved after changing their medicine and increasing dosage (Albert & Lindstrom, 2021).

Therefore, following pharmacologic guidelines when caring for clients with heart failure Improves clients' outcomes. The primary purposes of this review are summarizing the 2013 and 2017 guideline treatment for heart failure and using a case-based method to demonstrate how changing treatment can affect client outcomes (Albert & Lindstrom, 2021).

Key Points

Failing to administer proper medication and dose needed by an individual client with heart failure negatively affects the treatment outcome. More than 3,500 clients received treatment for heart failure with a reduced ejection fraction in the United States; unfortunately, less than 50 % of all clients have prescribed guideline-recommended doses (Albert & Lindstrom, 2021). The rate of hospitalization increases among these patients. When the health care team does not follow appropriate treatment, heart failure impacts clients' outcomes and increases hospitalization. In addition, many patients who have heart failure also have other comorbidity disorders, such as hypertension, sleep apnea, and anemia. About 50% to 81% of clients with heart failure have sleep apnea (Albert & Lindstrom, 2021). In other words, more than half of all clients diagnosed with heart failure also have other diseases. So, clients' outcomes depend on, type of medication prescribed, dosage, and comorbidity.

Assumptions

Reducing inequalities during the treatment of heart failure decreases morbidity and mortality. For example, one of the case studies used in this article is GL, a 63 years- old African American man diagnosed with heart failure eight years ago. GL had dyspnea at rest, used to sleep in the reclining chair, felt very tired, and a sedentary life for more than a year. GL had other conditions

like type 2 diabetes, hyperlipidemia, anemia, gout, and obstructive pulmonary disease. However, the client did not respect the treatment regimen and diet, which worsen his condition. Some of GL' home medication were valsartan, spironolactone, hydralazine, isosorbide, metoprolol succinate, and furosemide. However, these medications did not improve GL's condition. His treatment changed due to hypervolemia. The provider increased furosemide from 40 mg to 80 mg for three days; they changed valsartan to sacubitril and followed a low sodium diet. After three weeks, his symptoms resolved, and nurses educated the client for self-management care. The study shows that metoprolol succinate and SGLT2 inhibitor improved the client's outcome (Albert & Lindstrom, 2021). The example of GL showed that changing medication and respecting diet decreased mortality and increased survival after heart failure diagnosis.

Deficit/Conclusion

When caring for clients with heart failure, nurses should follow the guideline for better outcomes. Educating clients for self-care management and diet improves clients' wellbeing. Avoiding inequality during treatment will decrease mortality and morbidity (Albert & Lindstrom, 2021). Failing to follow the guideline increases hospitalization, morbidity, mortality and negatively affects patient outcomes (Albert & Lindstrom, 2021).

Conclusion

Nurses working in any facility, such as long-term care, hospital, rehabilitation, office, and more, should assess the cardiovascular system, recognize prevention measures, and develop treatment strategies. The assessment is the first step in the nursing process, allowing nursing to develop an appropriate care plan for clients as individuals. Nurses must be able to assess fluid balance in clients with heart failure and document findings. When monitoring fluid balance,

findings should match up with the clients' symptoms. Adequate nursing assessment and client education about fluid balance status improve the clients' outcome and compliance (Yang et al., (2019). The prevention of 30 days readmission of clients with heart failure after discharging decreases healthcare costs and improves clients' outcomes. Twenty-four clients hospitalize with heart failure, and 6 of them were readmitted 30 days following discharge (Weeks et al., 2020). The readmission rate is high among clients with heart failure, impacting care, cost, and the hospital's finance itself.

When providing care to clients with heart failure, healthcare providers need to follow the guideline for better outcomes. The article used three real case studies and demonstrate that all three-client had heart failure for years without improvement. However, after changing their medication accordingly to the guideline, they show much improvement (Albert & Lindstrom, 2021). Thus, following heart failure guideline for treatment reduces hospitalization and improves clients' outcomes. Implementing this information into nursing care will improve the quality of care, reduce disease progression, cost, rehospitalization, morbidity, and mortality associated with heart failure.

References

Albert, N., & Lindstrom, R. (2021). Pharmacologic heart failure treatment: A case-based review of current guidelines. *Journal of the American Association of Nurse Practitioners*, Advance on-line publication. https://doi.org/10.1097/JXX.0000000000000498

Hinkle, J. L., & Cheever, K. H. (2018). *Brunner & Suddarth's textbook of medical-surgical nursing* (14th ed.). Wolters Kluwer.

Weeks, K., Kile, D., & Garber, J. (2020). Implementing a nurse discharge navigator: Reducing 30-day readmissions for heart failure and sepsis populations. *Professional Case Management*, *25*, 343-349. https://doi.org/10.1097/NCM.0000000000000437

Yang, S., Mu, P., Wu, H., & Curia, M. (2019). Fluid balance monitoring in congestive heart failure patients in hospital: a best practice implementation project. *JBI Database of Systematic Reviews and Implementation Reports*, *17*, 2202-2211. https://doi.org/10.11124/JBISRIR-2017-004021