Determining the Credibility of Evidence and Resources

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When discussing evidence-based practice (EBP), it is important to make sure that thorough, well-researched options are considered when choosing resources to discourse. When considering the neuromuscular disease of Charcot-Marie-Tooth (CMT), evidence-based research is highly appealing, considering that it is not a common ailment that most people have heard of. Using the Stetler Model, the discussion will share how this model could potentially help expand patient care for those who have Charcot-Marie-Tooth disease and help the caregiver have a better understanding of the disease.

Describing a Chosen Diagnosis that Could Benefit from an Evidence-Based Approach

Charcot-Marie Tooth disease is one of the most common forms of any neurological diseases and is classified as a type of muscular dystrophy (Prescott, 2018, p. 4). This disease has been raked through with a fine-tooth comb to identify the neurological changes that reside within the walls of the patient who has this diagnosis. Many people have not had the experience of dealing with patient's who have CMT and would benefit from having a thorough foundation via evidence-based practice models and studies pertaining to this disease.

The use of anesthesia for one of the many orthopedic procedures that patients with CMT may undergo is an example where evidence-based practice research would be vital for the surgeon who is caring for the patient. Administering any type of anesthesia for orthopedic procedures to fix distorted joints, restore fall related fractures, or increase overall steadiness and stability while walking would require special anesthetic considerations. Too much anesthesia could potentially intensify the underlying neuropathy due to the neuromuscular blocking agents which reside in anesthesia. Any use of succinylcholine is contraindicated with Charcot-Marie-Tooth disease due to a higher probability of developing hyperkalemia. This information was

gathered through research using this diagnosis regarding evidence-based practice. If the performing surgeon was not aware of the implications that could occur through surgery relating to anesthesia administration, the patient could have a potentially fatal outcome. Evidence-based practice plays a beneficial role for the caregiver to ensure that patient safety is brought to the forefront of their minds each day in practice (Prescott, 2018, p. 2).

Considering Criteria When Determining Credibility of Resources

When searching for credible resources pertaining to Charcot-Marie-Tooth disease, there are several factors to keep in mind. Full-text articles from well-renowned publishers and scholars is something to consider. Any website that uses ".com" would not be considered credible as those sites are generally commercial and propagate some type of revenue-based incentive. Peer-reviewed articles and medical journals must also be relevant and current within the last five years. It is important to use current articles because the medical field is always advancing, and more and more discoveries are happening every day. It is imperative to make sure that the evidence-based data is scientifically collected by credible, well-known scholars. Using the Capella Library Database search engine can help to find information that is current and relevant to CMT and help to filter out data that does not pertain to the diagnosis and ensure that credible sources are being used and written within the past five years.

Analyzing the Credibility and Relevance of Evidence and Resources

Through using the Capella University library Database A-Z, CINAHL, the research article, *Identification of Candidate Genes Associated with Charcot-Marie-Tooth Disease by Network and Pathway Analysis*, was chosen as a credible investigation editorial. This is a full-text research article which was published in two thousand twenty. This helps promote accuracy and credibility in that the information is relevant and current with recent medical updates on

Charcot-Marie-Tooth disease. The publication company, BioMed International Research, uses a broad spectrum of scientific data, looking for methods to avoid and treat ailments that cause sickness and mortality in people and animals. Their documents are all subject to peer-review and apprehended to a high standard of educational fineness. The authors must not use plagiarism and must always give attribution to any sources or figures used in the development of the articles. All information pertaining to CMT in this article is scientifically collected and written by well-sought-after scholars.

Again, through use of the Capella Library Database A-Z, CINAHL, the research article, *Atypical Presentation of Charcot-Marie-Tooth Disease Type 1C with a New Mutation: A Case Report,* is a credible source of scientifically collected data. It was published in two thousand twenty-one and is very current and uses credible resources through scientific research. It is written by highly praised authors who have numerous degrees in biomedical science and neurology. The publisher, BMC Neurology, aims to discuss articles on facets of preclusion, identification and management of neurological ailments, and associated molecular genetics, pathophysiology, and epidemiology. This article is free of charge to the public and does not require a subscription fee. This article entails an evidence-based practice research on a fifty-six-year-old male patient who suddenly began showing signs and symptoms of CMT and the great lengths it took for physicians to discover what was debilitating him. It is very thorough and detailed through use of scientific data and research.

Evidence-Based Practice Model Pertaining to Charcot-Marie-Tooth Disease

Through use of an evidence-based practice model pertaining to Charcot-Marie-Tooth disease, it can give a pertinent insight into why patient caregivers do what they do. In particular, the Stetler Model uses four phases to help observe how to use substantiation to create patient-

centered care regarding change. The four phases of the Stetler Model are Preparation, Validation, Comparative Evaluation/Decision Making, and Translation/Application.

When discussing Preparation, it is important to determine a precedence requirement regarding Charcot-Marie-Tooth disease. Credible resources need to be gathered including recent articles written within the last five years, data collected using well-renowned authors and publishers, and search for full-text journal articles and peer-reviewed articles. This is important for setting a solid foundation when researching CMT. This disease is not heard of my many and when doing credible research, it is important to set a sturdy framework for data collection.

The next category is Validation which entails determining whether there is credibility and good merit behind it. It is important to choose journal articles for data collection that are written by highly sought-after authors and publishers. This gives great credibility and likelihood that the information that is being collected is dependable, trustworthy and accurate.

Phase three of the Stetler Model is Evaluation/Decision Making which helps to determine if the discoveries are appropriate and reasonable to pertain to practice. It is important to determine the risks versus the benefits of the data collected and to decide what resources would be necessary to promote the research and to decipher the readiness of staff members involved.

The final phase is Translation/Application which involves interpreting the results into a proposal and then using application to make it happen. An example of this pertaining to CMT would be use of anesthesia for necessary surgeries required as a result of the neurological debilitation that happens over the course of time with this disease. Patient's with CMT cannot use certain amounts of anesthesia's because of the already compromised underlying neuropathy and the neuromuscular blocking agents which reside in anesthesia (Prescott, 2018, p. 2). The medical staff would have to determine the risks versus the benefits of performing surgeries on

patient's with CMT and determine if they have alternative methods of performing necessary operations on those with this diagnosis.

Conclusion

Through careful research and data collection, Charcot-Marie-Tooth disease can be easily understood through use of credible journals and peer-reviewed articles. This disease is one of the more prominent diseases associated with muscular dystrophy but is still incredibly uncommon. For caregivers to be able to provide adequate care to patients with this diagnosis, it is important to know how to find credible data that is recent, noteworthy, and trusting. Using evidence-based practice models such as the Stetler Model, are an important way to use phases to determine if the research discovery is credible enough to be able to make a change in patient-centered care.

References

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