Neurodiagnostic technology importance in medicine today

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Neurodiagnostic technology refers to the medical diagnostic field that records and analyzes the electrical activity in the brain and nervous system. It assists in tracking problems and helping physicians in therapy. Thus, the process enhances the quality of life of patients. This paper will discuss neurodiagnostic technology importance in medicine today and different services ofneurodiagnostic technologists that they offer in medicine today.

Neurodiagnostic technology is cutting edge technology in today medicine that uses specialized equipment for ascertaining normal and abnormal electrical activity in the central nervous, autonomic as well as in peripheral nervous systems. For instance, there can be ambulatory monitoring, brain mapping, long-term epilepsy monitoring, and nerve conduction studies. Before sending results of different tests to physicians, neurodiagnostic technologists will analyze and edit them. This practice assists the physician in interpreting the results (Tatum et al., 2018).

 Neurodiagnostic technologists have the required knowledge as well as skills to interpret records of patients' nervous system function. This interpretation helps in diagnosis of surgery and therapy for different conditions. For example, when a surgeon is treating the issue related to the spinal cord, by moving, opening or correcting it. During this procedure, neurodiagnostic technologists observe the pathways and if there is any change in nerve responses of patients, they inform surgeon so there may not be damaged at or near the surgical site (Tatum et al., 2018). In the absence of these technologies, it is not possible to detect these kinds of damages by surgeons with the naked eye.

Moreover, neurodiagnostic technology is also important in the intensive care unit. Patients with seizures are evaluated for probable surgery (Osman, Friedman, & Hirsch, 2017). neurodiagnostic tech run EEG tests on patients and detect various disorders and diseases such as epilepsy, brain tumors as well as sleep disorders. Additionally, apart from hospitals neurodiagnostic technologists also work in specialized sleep and epilepsy labs; independent clinics; educational institutions as well as in research facilities.

References

Osman, G., Friedman, D., & Hirsch, L. J. (2017). Diagnosing and Monitoring Seizures in the ICU: The Role of Continuous EEG for Detection and Management of Seizures in Critically Ill Patients, Including the Ictal-Interictal Continuum. In *Seizures in Critical Care* (pp. 31–49). Springer.

Tatum, W. O., Rubboli, G., Kaplan, P. W., Mirsatari, S. M., Radhakrishnan, K., Gloss, D., … Schomer, D. L. (2018). Clinical utility of EEG in diagnosing and monitoring epilepsy in adults. *Clinical Neurophysiology*, *129*(5), 1056–1082.