The Besrour Centre for Global Family Medicine
Dr. Patrick Chege Memorial Research Award Poster Presentation

Initiating Usage of the Neuro-Sign Chart at ALERT General Hospital, Addis Ababa, Ethiopia

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Background: Neurological disorders constitute 6.3% of the global burden and contribute 12% of total deaths globally. Among these, cerebrovascular diseases are the most common (85%). At ALERT General Hospital, patients with neurologic disorders contributed 48% of ward admissions in 2020.

Neuro-Sign Chart is used for monitoring, evaluating & following patients admitted with neurological disorders. Its components are vital signs, oxygen saturation, random blood sugar, seizure occurrence, Glasgow Coma Scale (GCS), muscle tone & power, deep tendon reflex, pupillary reaction, documented vomiting, fluid input & output, and remarks. It provides an instant snapshot of neurologic status in a given period & it is vital in ensuring the early recognition of neurological deterioration like raised intracranial pressure and is known to improve patient outcomes.

Methods: Currently patients admitted with a neurologic disorder in the Medical Ward at ALERT are not followed with a Neuro-Sign Chart. We believe that introducing it will assist with better detection of raised ICP and improved provision of urgent management. We implemented a quality improvement project intending to have Neuro-Sign Chart documentation in ≥60% of patients admitted with neurological diseases from December 1-31, 2021. We designed a Plan, Do, Study, Act (PDSA) cycle, and collected data through chart reviews and counts of proper documentation pre and post-intervention. The intervention itself included education and dissemination of posters around the ward.

Results: In the pre-intervention period, there were 12 patients admitted with neurologic disease, and out of these patients, none had a Neuro-Sign Chart follow-up sheet documented. Post-intervention, of the 16 neurologic patients admitted to the ward, 11 (68.75%) had a proper Neuro-Sign chart follow-up in a documented sheet. The number of GCS posters and Neuro-Sign Chart sheets distributed increased from 0 for both to 15 and 60, respectively.

Conclusion: An educational intervention to increase awareness among health care providers can be successful in initiating behavioral change to document Neuro-Sign Chart parameters into patient charts for those admitted with neurological disease. The overall aim of this project would be to improve the quality of management and decrease morbidity, mortality, and hospital stay by timely detection of complications in neurologic patients. Further research is needed to assess the outcome of using this practice.