Book Review: *Neurologic Emergencies: How to Do a Fast, Focused Evaluation of Any Neurologic Complaint*

By: Latha Ganti, Joshua N. Goldstein, editors
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No organ system is more complex and more challenging to manage than the neurological system. Patients are often unable to report their complaint, specify the clinical context, or provide an accurate history. Rapid progressive deterioration can occur, affecting other organ systems—such as respiratory depression, cardiac ectopy, and nausea, and vomiting. Clinical neurological entities can be ambiguous, with multiple possible etiologies, as with dizziness, weakness, or altered cognition.

However, it is an exciting time for the field of emergency neurology. Innovation and discovery have driven a transformation in diagnostics and treatment. Patients once doomed to permanent disability or death now have chance at a normal life. Treatments, such as tissue Plasminogen Activator and thrombectomy for acute stroke, treatments for intracranial hemorrhages, aggressive guideline driven management of traumatic brain injury, have all changed the paradigm, saved lives, and reduced disability. Tools such as computed tomography angiography, computed tomography perfusion, diffusion-weighted imaging, diffusion tensor imaging, combined with validated real-time algorithms such as RAPID CT and ASPECTS scoring, now provide the emergency clinician with actionable data to make a definitive diagnosis, recommend treatment options and inform prognosis. Given that many neurological conditions and treatments are time sensitive, requiring astute clinicians to rapidly diagnosis and intervene, these advances converge squarely in the emergency department and on the emergency clinician.

In Neurological Emergencies, editors Latha Ganti and Joshua Goldstein, experts in neurological emergencies in their own right, pull together an impressive array of acute care clinicians and specialist to develop a guide for the rapid evaluation of a patient with a neurological complaint. Authors include emergency physicians, neurologist, neuroscientists, neurointerventionalists, neurosurgeons, and other experts in the field.

The book covers a broad spectrum of neurological emergencies. Each chapter includes both an in-depth discussion of the topic and a streamlined emergency department approach. Comprehensive differential diagnoses are included along with relevant easy to review graphs, figures, and tables. The content is up to date and includes the latest guidelines and recommendations. Any clinician on the front lines of care would benefit from reading this book.

Chapter 1 begins with the basic neurological exam. While very detailed, the chapter covers the important aspects of a clinical exam, and provides a suggested rapid approach to the required emergency department evaluation. The next chapter, Rule Out Acute Stroke, is very well written and is an excellent overview of the emergency approach to acute stroke. The chapter includes a high-level review of the more recent rational for thrombectomy that describes which patients may benefit from this game-changing approach. The Acute Head Injury chapter focuses primarily on the indications for imaging. Future editions may benefit from a more robust discussion of concussion, goal-directed therapy for moderate to severe traumatic brain injury (TBI), and/or other guidelines for TBI treatment relevant to emergency care.

Other bread and butter emergency medicine topics, including seizures, altered mental status, headaches, neck and back pain, and vision complaints, are all expertly covered. In addition, there
are chapters addressing the ambiguous emergency department (ED) complaints of dizziness, syncope, and generalized weakness. The chapters provide comprehensive, yet sensible approaches to these complex presentations. In the dizziness chapter, the author presents a novel diagnostic method—the ATTEST screen—for delineating the etiology based on timing, triggers, and context. The syncope chapter provides a comparison of evidence-based decision rules that demonstrates the strengths and weakness of each rule. The guide for syncope risk stratification based on symptoms and event characteristics is particularly helpful in determining who needs admission vs an outpatient work up. One topic, typically not covered in other texts and an “all too common” condition seen in the emergency department is psychogenic syndromes and malingering. This chapter is an excellent overview of the topic and provides clever approaches and tools for deposing nonanatomic complaints. Excellent overviews of common CNS infections and generalized motor complaints are also provided. The book closes out with a case-based review of computed tomography, the golden tool for neurological complaints in the emergency setting.

In summary, Neurological Emergencies provides a succinct yet ample review of the most common neurological emergencies that an emergency care provider will likely encounter. While not a bedside handbook, it is easy to read, well laid out, and would be a great resource for anyone who cares for patients in the emergency setting.

Disclosure
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