NDT A287: EEG RECORD REVIEW-ABNORMAL

Item	Value
Curriculum Committee Approval Date	11/15/2023
Top Code	121200 - Electro-Neurodiagnostic Technology
Units	1 Total Units
Hours	18 Total Hours (Lecture Hours 18)
Total Outside of Class Hours	0
Course Credit Status	Credit: Degree Applicable (D)
Material Fee	No
Basic Skills	Not Basic Skills (N)
Repeatable	No
Grading Policy	Standard Letter (S)

Course Description

Continued practice in electroencephalography (EEG) record review of neurological subjects covered in NDT A115. Classification of abnormal EEG patterns with correlation to clinical disorders. COREQUISITE: NDT A115 and NDT A191. Transfer Credit: CSU.

Course Level Student Learning Outcome(s)

1. Identify and describe abnormal EEG patterns in the neonatal, infant, pediatric and adult age groups correlating the patterns with clinical disorders and clinical signs.

Course Objectives

- I Describe in technical writing basic EEG characteristics based on frequency, morphology, topography and reactivity.
- I. 1. Identify and describe focal abnormal EEG patterns.
- I. 2. Identify and describe generalized abnormal EEG patterns.
- I. 3. Identify and describe unilateral and bilateral abnormal EEG patterns.
- I. 4. Identify and describe abnormal patterns elicited by activations.
- II Correlate EEG patterns with neurologic disorders and their clinical symptoms.
- II. 1. Describe the EEG and clinical signs of focal seizures, generalized seizures and idiopathic seizures.
- II. 2. Describe and correlate EEG patterns associated with convulsive status, non-convulsive status, and secondary bilateral synchrony.
- II. 3. Describe and correlate EEG patterns with severe traumatic events, hypoxia/anoxia, and brain death.

Lecture Content

Introduction, class description (handout), and grading criteria Hockadays classification of EEG records Grading system predictive value of serial EEGs Technical writing of EEG findings Freqency Morphology Topography Reactivity Clinical Signs EEG in Generalized Epilepsy Typical spike and wave Atypical spike and wave Polyspike and wave GPFA EEG in Focal Epilepsy Spikes, sharps Focal rhythmical events BCECTS EEG in Encephalopathic Disorders Toxic Metabolic Inflammatory Hypoxic Degenerative Prion EEG in Focal Structural Lesions/Space Occupying Lesions Cerebral tumor Infarction Hemorrhage Contusion EEG in Severe Head Trauma/Brain Death Burst suppression ECI

Method(s) of Instruction

- Lecture (02)
- DE Live Online Lecture (02S)

Instructional Techniques

Powerpoint lectures, patient case studies, EEG review software, discussion groups, group activities.

Reading Assignments

Required textbook/handouts reading. (2 hrs/week)

Writing Assignments

Brief technical descriptions of electroencephalographs presented in discussions or class homework.

Out-of-class Assignments

Research project, homework, discussion questions. (2-3 hrs/week)

Demonstration of Critical Thinking

Case study analysis/evaluation Fill-in/short answer quizzes Comprehensive Final Exam (fill-in/short answer) Discussion questions/in-class activities Homework

Required Writing, Problem Solving, Skills Demonstration

Students will be writing brief technical descriptions of electroencephalographs presented in class for in-class activities/class or homework discussions. Students will create an EEG Atlas portfolio that will include examples with written descriptions of abnormal EEG patterns.

Eligible Disciplines

Diagnostic medical technology-diagnostic medical sonography, neurodiagnosti...: Any bachelors degree and two years of professional experience, or any associate degree and six years of professional experience.

Textbooks Resources

1. Required Quigg, Mark. EEG Pearls, 1 ed. Philadelphia: Mosby Elsevier, 2006 Rationale: Latest and only edition, recommended by accrediting body that hosts the national registry exam. Cost effective for students. Already required for previous course (NDT 191).

Other Resources

1. Instructor provided handouts.