



Masud Seyal, M.D., Ph.D.

Philosophy of Care

I strive to provide the best possible care for my patients with epilepsy by arriving at the correct diagnosis and providing appropriate medical and surgical treatments options based on the most current evidence.

Clinical Interests

Dr. Seyal is Director of the Clinical Neurophysiology laboratory and the UC Davis Medical Center Comprehensive Epilepsy Center. This Center has received the highest designation (Level 4) by the National Association of Epilepsy Centers. Dr. Seyal specializes in the management of patients with epilepsy.

Research/Academic Interests

His current research is focused on respiratory and cardiac disturbances during epileptic seizures. These disturbances may underlie sudden unexpected death in epilepsy (SUDEP), a common cause of mortality in patients with epilepsy. This work has resulted in several publications in premier neurology journals including Brain and Epilepsia. Dr. Seyal is a member of the editorial board of the Journal of Clinical Neurophysiology and provides editorial review for several other neurology journals.

Title Director of the EEG Lab
Professor

Specialty Neurology, Epilepsy

Department [Neurology](#)

Division Neurology

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Education M.B.B.S., King Edward Medical College, Lahore, Pakistan 1970
Ph.D., UC Berkeley, Berkeley CA 1976

Internships Monmouth Medical Center, Long Branch NJ 1971-1972

Residency Neurology, University of Kansas, Kansas City KS 1976-1979

Fellowships EEG/Epilepsy, Columbia University, New York NY 1980-1982
Epilepsy, National Institutes of Health, Bethesda MD 1979-1980



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Board Certifications

American Board of Psychiatry and Neurology
American Board of Psychiatry and Neurology, Clinical Neurophysiology
American Board of Psychiatry and Neurology, Epilepsy

Professional Memberships

American Academy of Neurology, Elected Fellow
American EEG Society, Elected Fellow
American Epilepsy Society
The American Neurological Association

Select Recent Publications

Park K, Kanth K, Bajwa S, Girgis F, Shahlaie, Seyal M. Seizure-related apneas have an inconsistent linkage to amygdala seizure spread. *Epilepsia*. 2020 Jun;61(6):1253-1260. doi:10.1111/epi.16518.

Park KJ, Seyal M. Tonic electromyographic activity following bilateral tonic-clonic seizures is associated with periictal respiratory dysfunction and postictal generalized EEG suppression. *Epilepsia*. 2019 Feb;60(2):268-274. doi:10.1111/epi.14632. Epub 2019 Jan 10. PMID:30630218.

Park KJ, Sharma G, Kennedy JD, Seyal M. Potentially high-risk cardiac arrhythmias with focal to bilateral tonic-clonic seizures and generalized tonic-clonic seizures are associated with the duration of periictal hypoxemia. *Epilepsia*. 2017 Dec;58(12):2164-2171. doi:10.1111/epi.13934. Epub 2017 Nov 3.

Peng W, Danison JL, Seyal M. Postictal generalized EEG suppression and respiratory dysfunction following generalized tonic-clonic seizures in sleep and wakefulness. *Epilepsia*. 2017 Aug;58(8):1409-1414. doi:10.1111/epi.13805. Epub 2017 May 28.

Rugg-Gunn F, Duncan J, Hjalgrim H, Seyal M, Bateman L. From unwitnessed fatality to witnessed rescue: Nonpharmacologic interventions in sudden unexpected death in epilepsy. *Epilepsia*. 2016 Jan;57 Suppl 1:26-34. doi:10.1111/epi.13231. PMID:26749014.

Kuo J, Zhao W, Li CS, Kennedy JD, Seyal M. Postictal immobility and generalized EEG suppression



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are associated with the severity of respiratory dysfunction. *Epilepsia*. 2016 Mar;57(3):412-7. doi: 10.1111/epi.13312. Epub 2016 Jan 14. PMID:26763069.

Kennedy JD, Hardin KA, Parikh P, Li CS, Seyal M. Pulmonary edema following generalized tonic clonic seizures is directly associated with seizure duration. *Seizure*. 2015 Apr;27:19-24. doi: 10.1016/j.seizure.2015.02.023. PMID:25844030.

Ryvlin P, Nashef L, Lhatoo SD, Bateman LM, Bird J, Bleasel A, Boon P, Crespel A, Dworetzky BA, Høgenhaven H, Lerche H, Maillard L, Malter MP, Marchal C, Murthy JM, Nitsche M, Patariaia E, Rabben T, Rheims S, Sadzot B, Schulze-Bonhage A, Seyal M, So EL, Spitz M, Szucs A, Tan M, Tao JX, Tomson T. Incidence and mechanisms of cardiorespiratory arrests in epilepsy monitoring units (MORTEMUS): a retrospective study. *Lancet Neurol*. 2013 Oct;12(10):966-77. doi:10.1016/S1474-4422(13)70214-X. Epub 2013 Sep 4. PMID:24012372.

Seyal M. Frontal hemodynamic changes precede EEG onset of temporal lobe seizures. *Clin Neurophysiol*. 2014 Mar;125(3):442-8. doi:10.1016/j.clinph.2013.09.003. Epub 2013 Sep 27. PMID:24079949.

Bateman LM, Li CS, Seyal M. Ictal hypoxemia in localization-related epilepsy: analysis of incidence, severity and risk factors. *Brain*. 2008 Dec;131(Pt 12):3239-45. doi:10.1093/brain/awn277. Epub 2008 Oct 24. PMID:18952672.

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