Cureus

Open Access
Poster

Epidemiology of Seizures in the Preshospital Setting in Two States in India

Jennifer A. Newberry [1] , Corey B. Bills [2] , Elizabeth A. Pirrotta [3] , G.V. Ramana Rao [4] , Swaminatha Mahadevan [5] , Matthew C. Strehlow [1]

1. Department of Emergency Medicine, Stanford University School of Medicine, Palo Alto, USA 2. Emergency Medicine, University California San Francisco 3. Department of Emergency Medicine, Stanford University School of Medicine, Stanford, USA 4. Emergency Medicine Learning Centre (EMLC) & Research, GVK Emergency Management and Research Institute 5. Emergency Medicine, Stanford, Palo Alto, USA

Corresponding author: Jennifer A. Newberry, newberry@stanford.edu

Categories: Emergency Medicine, Neurology, Epidemiology/Public Health
Keywords: emergency medicine, emergency medical services, public health, seizures, epidemiology, neurology

How to cite this poster
Newberry J A, Bills C B, Pirrotta E A, et al. (2016) Epidemiology of Seizures in the Preshospital Setting in Two States in India . Cureus 8(4): e.

Abstract

Introduction:

A significant treatment gap for seizures exists in India and many patients will not receive needed treatment due to cost, distance, and lack of infrastructure – barriers that emergency medical services can overcome.

Objective:

Characterize the epidemiology of seizures in the prehospital setting.

Methodology:

A convenience sample of patients calling 108 ambulance service for a chief complaint of seizures was collected across two states, Gujarat and Andhra Pradesh. Interfacility transfers and patients under 1 month of age were excluded. Follow-up was completed at 48 hours and 30 days.

Results:

1,065 patients were enrolled. Response rates were 84.5% at 48 hours and 77.8% at 30 days. Patients were majority male (63.7%); mean age was 29.7 years (SD 20.9); and most were of lower social and economic classes (74.8% and 81.5%, respectively). Median transport time was 47 minutes (IQR 31-66). Acute symptomatic seizures were most common (46.5%), followed by unprovoked recurrent (26.4%) and unprovoked isolated seizures (17.6%). Of all patients, 18% presented in status epilepticus. Overall cumulative mortality at 30 days was 9.2%. Mortality was significantly higher if over 65 years old (26.9%; $p < 0.0001$) or presenting in status epilepticus (14.5%; $p < 0.0006$).

Open Access
Published 04/18/2016

Conclusions:

Patients of lower socioeconomic status, who are most affected by the treatment gap in India, utilize EMS via 108 to obtain care and to swiftly connect to the greater healthcare infrastructure. EMTs face a tremendous challenge, with high rates of status epilepticus and particularly ill patients with high mortality

65