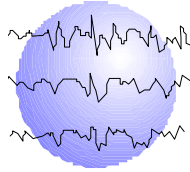


# RETURN RATE TO EPILEPSY CLINIC FOLLOWING INPATIENT NON-EPILEPTIC SEIZURE DIAGNOSIS

Sharon Mason, MA, LP  
Robert C. Doss, PsyD



This paper has been prepared specifically for:

American Epilepsy Society Annual Meeting  
Philadelphia, PA  
December 1– 4, 2007

Please consider this information to be preliminary findings.

Abstract available electronically at: [www.aesnet.org](http://www.aesnet.org) [1.225]

Minnesota Epilepsy Group, P.A.<sup>®</sup>  
225 Smith Avenue N., Suite 201  
St. Paul, MN 55102  
Phone: (651) 241-5290  
Fax: (651) 241-5248

## REVISED ABSTRACT

**RATIONALE:** Treatment of the Non-epileptic seizure patient (NES) post diagnosis is a challenge for the epilepsy treatment team. In our program, NES patients are typically recommended for follow-up with both a neurologist and psychologist post inpatient diagnosis and discharge. The purpose of this study was to determine the rate of return to follow-up clinic appointments in this population.

**METHODS:** The sample consisted of 57 patients discharged from the adult inpatient epilepsy unit with the diagnosis of NES over a 2 year period. A psychogenic etiology for their seizure events was determined after ruling out physiological causes, and conducting a thorough psychological assessment. Follow-up record review identified those patients who returned to the clinic at least one time for an appointment with the neurologist and/or psychologist.

**RESULTS:** Fifty-seven patient records were reviewed and 45 with complete records were retained for further analysis. Of the 45 patients, 23 (51%) returned to the clinic to meet with the neurologist. Of that group 10 (43%) also met with the psychologist. There was a cancellation/no-show rate of 13%. Results will be considered in relation to demographic variables, inpatient diagnostic process, and personality characteristics.

**CONCLUSION:** These findings indicate that a significant number (49%) of NES patients do not return to meet with the Epilepsy Center neurologist or psychologist following discharge, despite specific recommendations to do so. Our program believes that outpatient follow up of these patients is crucial for resolution of psychogenic seizures and improved well-being. The discharge conference may be a critical opportunity to emphasize the importance of such follow through. Further research is needed to determine the reasons for lack of compliance with discharge recommendations.

**INTRODUCTION:**

- The treatment of the non-epileptic seizure (NES) patient remains a challenge for both medical and psychological professionals.
- Information about the efficacy of existing models for inpatient diagnosis and management of the NES patient is limited.
- The Minnesota Epilepsy Group (MEG) model includes “seed planting” regarding NES during the admission, a multi-disciplinary team discharge conference with an explanation of the nature of NES, and recommendations for follow up with a neurologist and psychologist.
- The objective of the current study was to determine the rate of return to follow-up neurology and psychology clinic appointments following discharge.

**METHODS:**

- A retrospective review of medical records was conducted for 57 patients discharged from the adult inpatient epilepsy unit at United Hospital with a diagnosis of NES over a 2 year period.
- Complete data were available for 45 patients.

<b>N</b>	<b>Sex</b>	<b>Age</b>
45	Male 17 Female 28	Mean 36 Range 18-74

- Patients were identified who returned to the Minnesota Epilepsy Group for at least one visit with the neurologist and/or psychologist.
- Comparisons were made between those patients who returned to the clinic and those who did not. The following variables were reviewed: location of patient, psychiatric history, and components of the NES diagnosis process during inpatient evaluation. Data were analyzed using parametric and non-parametric statistical procedures.

**RESULTS**

- 51 % of this sample returned to the clinic following discharge for at minimum one appointment with either the neurologist or psychologist
- There was a 13% cancellation or no-show rate
- While a greater percentage of the total group was female (62%), there were no significant gender differences noted on variables explored.
- 93.3 % of this pt sample had a psychiatric history

**Significant Test Results**

- Chi-square analyses showed that those individuals who lived within a 60 mile radius of the Twin Cities were significantly more likely to return to the MEG clinic for a follow-up appointment (p<.05)
- Individuals were less likely to return to the MEG clinic if they were given a specific mental health referral elsewhere (p<.01)

### **Other Results**

- Of those who returned to the MEG clinic following discharge 43% also met with a psychologist
- No significant differences were found between groups on the following variables: previous psychiatric history, personality characteristics, length of hospital stay, age of seizure onset, seizure frequency, seed planting prior to discharge, multi-disciplinary team discharge meeting held, and appointment made with MEG neurologist or psychologist prior to discharge
- Of those who did not return to the clinic 46% were local and 55% were considered not local
- No significant differences were noted when comparisons were made between local patients who returned to clinic and local patients who did not return

### **CONCLUSIONS:**

- Approximately half of NES patients do not return to meet with the epilepsy center neurologist or psychologist
- As would be expected, most of the inpatient NES group who return for follow-up are from the locale of the epilepsy center (78.3%)
- Those individuals who are referred elsewhere for psychological services (local or non-local) are less likely to return to the clinic for an appointment with the neurologist.
- There are no apparent differences in return rate based on identified demographic and clinical variables, which are part of the inpatient diagnostic process
- Although differences in attending neurologist's style are inevitable, our experience indicates that adhering to consistent program guidelines can minimize this factor.
- The relationship between acceptance of NES diagnosis, level of follow-up care engagement, type of treatment, and NES outcome should be further investigated.

	<b>Returned to Clinic</b>	<b>Did Not Return to Clinic</b>	<b>p-value</b>
<b>Total #</b>	23 (51%)	22 (49%)	
<b>Sex: Male</b>	9 (20%) <sup>a</sup>	8 (18%) <sup>a</sup>	ns
Female	14 (31%) <sup>a</sup>	14 (31%) <sup>a</sup>	
<b>Age: Mean (SD)</b>	35.57 (14.8)	35.68 (11.7)	ns
Range	(18-59)	(19-74)	
<b>Age of Seizure Onset:</b>			ns
Mean (SD)	27.91 (16.1)	30.59 (11.2)	
<b>Seizure Frequency (per week):</b>	7.3 (8.2)	4.43 (5.3)	ns
Mean (SD)			
<b>Hospital Stay (days):</b>	9.17 (3.7)	7.95 (3.5)	ns
Mean (SD)			
<b>Located Close to Clinic</b> (n=45)	18 (78.3%) <sup>b</sup>	10 (45.5%) <sup>c</sup>	.023
<b>NES Discharge Meeting</b> (n=44)	22 (95.7) <sup>b</sup>	21 (100%) <sup>c</sup>	ns
<b>Seed Planting</b> (n=38)	10 (50%) <sup>b</sup>	6 (33%) <sup>c</sup>	ns
<b>Appointment Made Prior to Discharge</b> (n=44)	11 (50%) <sup>b</sup>	7 (31.8%) <sup>c</sup>	ns
<b>Referral to Other Psychologist</b> (n=35)	5 (26.3%) <sup>b</sup>	11 (68.8%) <sup>b</sup>	.012
<b>Previous Psychiatric History</b> (n=45)	21 (91.3%) <sup>b</sup>	21 (95.5%) <sup>c</sup>	ns

<sup>a</sup>% of total sample

<sup>b</sup>% of return to clinic patients

<sup>c</sup>% of no return to clinic patients