

# A review of Epilepsy Specialist Nurse's clinical activity and impact on paediatric admissions

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## Aims

To quantify and characterise clinical activity for the Epilepsy Specialist Nurse (ESN) at Kings Mill Hospital.

To assess whether the introduction of an Epilepsy Specialist Nurse was associated with a change in rates of paediatric admissions for children with known epilepsies.

## Methods

Prospective diary records, prospective documentation of telephone calls during a sample time period and analysis of epilepsy related admission rates were undertaken.

### Diary review

#### Method

The Epilepsy Specialist Nurse's diary has documented patient contact since commencement of post April 2007. Activity was analysed over 24 months between April 2007- April 2009.

#### Results

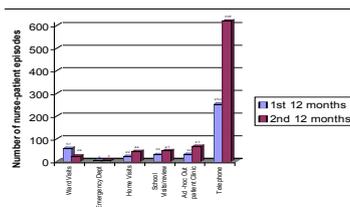


Fig.1. Bar chart showing number of 'nurse-patient episodes' for each type of activity.

### Telephone review

#### Method

All nurse-patient telephone conversations over a 5 week period in 2008 were prospectively analysed, documenting reason for the call, duration and outcome

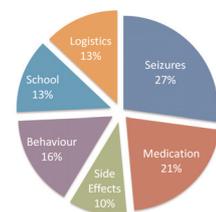


Fig.2. Proportions of 'reasons for calls'

#### Results

Total number phone calls = 70  
(mean 14 phone calls/week)  
Total duration = 9.3 hours  
Median duration = 5.5 min  
14/70 planned (20%)  
56/70 unplanned (80%)

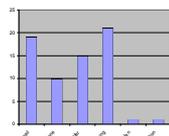


Fig.3. Numbers of different outcomes of telephone conversation

### Epilepsy related admissions

#### Method

Admission rates for children with epilepsy were analysed. From April 2004 to March 2009 all children <16 years whose acute admission was coded as epilepsy were counted. Changes in rates of admission were analysed using the statistical method of process control charts.

#### Results

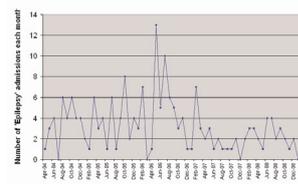


Fig.4. Number of epilepsy admissions /month from April 2004 to March 2009

Mean number of admissions prior to April 2007 (Commencement of epilepsy specialist nurse post) was 4. Mean number of admissions after April 2007 = 2. This difference reached statistical significance using a process control chart technique where 7 consecutive observations below the previous mean suggest a significant change in mean ( $p=.05$ )

## Conclusions

1. The diary review shows the diversity of ENS activities. Many activities fall outside those activities which are routinely recorded by NHS trusts.
2. The activity of the Epilepsy Specialist Nurse appeared to increase in all domains in the second year except in ward reviews where it appeared paradoxically to decrease.
3. There were a wide range of 'reasons for telephone calls' which demonstrates the varied concerns of the client group. The majority of phone calls were unplanned and resulted in actions.
4. The commencement of the Epilepsy Specialist Nurse was associated with a significant reduction in epilepsy related admission rates.