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Letter to the editor

Can epilepsy care in psychiatric settings be improved? Results from an Irish multicentre study

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Editor –

The prevalence of epilepsy in Ireland is approximately 1% [1]. Up to 75% of people with epilepsy suffer with a co-morbid major mental illness [2]. Individuals with epilepsy attending mental health services and particularly when admitted to acute psychiatric inpatient units can present diagnostic and therapeutic challenges. Complex partial seizures can be difficult to differentiate from symptoms of mental illness leading to the possibility of diagnostic error [3,4]. Therapeutic challenges include potential interactions between psychotropic agents including altered medication plasma levels [5] impacting on rates and severity of adverse sequelae and altered seizure thresholds. Thus, a collaborative approach between specialists in psychiatry and neurology is advisable for optimal diagnosis, treatment and risk management [6].

Diagnosis triggered tools [7] or specialised toolkits [8] have been suggested as a method to improve the systematic assessment and management of epilepsy in individuals with co-morbid major mental illness in both acute psychiatric inpatient units and in individuals with co-morbid intellectual disability.

In this study, audit cycle data from 12 psychiatric inpatient units examined the recording of diagnosis, management strategies and assessment of risk in individuals with co-morbid epilepsy before and after the introduction of a diagnosis triggered tool.

In the initial audit, 386 consecutive patient clinical files across 12 psychiatric inpatient units (11 acute psychiatric inpatient units and a tertiary specialised inpatient service) were examined. Data pertaining to seizure type, seizure description, triggers, investigations for epilepsy, epilepsy risk assessments and antiepileptic medication including "rescue medication" was attained. After the initial audit a diagnosis triggered tool [7] was introduced at all centres with epilepsy awareness sessions additionally provided. The tool (attached as supplemental content) is a brief aide-memoire for key aspects of epilepsy assessment and management informed by best practice guidelines [6]. Educational sessions were delivered by a Consultant Psychiatrist. The content of each 60-min session included the International League Against Epilepsy classification, the relevance of seizures to the practising psychiatrist and focussed on areas of diagnostic and therapeutic risk.

A further audit subsequently examined 381 consecutive patient clinical files in the same centres to ascertain if changes in clinical practice had occurred secondary to the intervention. Ethical approval was attained from the relevant research ethics and/or audit committees related to each centre.

Chi Square ($\chi 2$) test (or where there was a small sample size in any cell, the Fishers Exact Test) were utilised to examine differences pre- and post-intervention (SPSS 24.0 for Windows, SPSS Inc., IBM, New York).

Epilepsy was present in 4.9% and 4.2% of participants at baseline and post-intervention. Data pertaining to the documentation of seizure characteristics, psychotropic medication and risk assessments are detailed in Table 1. Of note, a statistically significant improvement in recording of seizure type (87.5% v. 21.0%, $p < 0.01$), description of seizures (75.0% v. 0.0%, $p < 0.01$) and a performance of a risk assessment (68.7% v. 16.0%, $p < 0.01$) was noted post-intervention.

Consistent with existing literature, epilepsy was noted in this cohort to be present at significantly higher rates compared to the general population [9]. Prior to the introduction of a diagnosis triggered tool, low rates of documentation regarding seizure type and description, risk assessment, investigations relating to epilepsy and provision of "rescue" antiepileptic medications were noted. Findings were consistent with similar studies conducted in the United Kingdom [9,10]. An improvement in all study aspects was noted post-intervention, however the persistence over time of these improvements have yet to be examined.

Over 30% of clinical notes at follow-up had very limited or no data pertaining to investigations for epilepsy, risk assessments related to the presence of epilepsy and a prescription of "rescue" medication in the event of an epileptic event, suggesting that on-going audit with subsequent educational interventions may be required.

These findings highlight the need for training in epilepsy awareness for psychiatrists and suggest that the use of a diagnosis triggered tool has the potential to contribute to better clinical care.

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Table 1
Results of the completed audit cycle.

	Baseline (n = 386) n (%)	Follow-up (n = 381) n (%)	Statistics x^2, p
Presence of epilepsy	19 (4.9)	16 (4.2)	0.23, 0.63
Seizure type	4 (21.0)	14 (87.5)	15.35, < 0.001*
Triggers for seizures	3 (16.0)	12 (75.0)	12.43, 0.001*
Seizure description	0 (0.0)	12 (75.0)	21.69, < 0.001*
Investigations for epilepsy	7 (37.0)	11 (68.7)	3.54, 0.06
Regular antiepileptic medication	19 (100.0)	16 (100.0)	0.00, 1.00
"Rescue" antiepileptic medication	8 (42.0)	10 (62.5)	1.45, 0.229
Epilepsy risk assessment	3 (16.0)	11 (68.7)	10.15, 0.001*

Fishers Exact test was utilised if < 5 individuals were present in any cell.

Conflicts of interest

None.

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Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.genhosppsych.2018.11.010.

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