Seizure (2008) 17, 69–75

ELSEVIER

SEIZURE

www.elsevier.com/locate/yseiz

# Audit of healthcare provision for UK prisoners with suspected epilepsy

P. Tittensor [a,1], J. Collins [b,2], R.A. Grünewald [b,2], M. Reuber [b,*]

[a] *Mid Staffordshire General Hospitals NHS Trust, Department of Neurology, Weston Road, Stafford, Staffordshire ST16 3SA, United Kingdom*
[b] *Sheffield Teaching Hospitals NHS Trust, Department of Neurology, Royal Hallamshire Hospital, Glossop Road, Sheffield S10 2JF, United Kingdom*

Received 22 December 2006; received in revised form 21 June 2007; accepted 10 July 2007

**KEYWORDS**
Epilepsy;
Misdiagnosis;
Seizures;
Prisoners;
Stigma;
Substance misuse

**Summary**

*Purpose:* To describe the prevalence and nature of epileptic seizure disorders in a typical UK prison and compare the care offered to prisoners to the recommendations of the National Institute for Clinical Excellence (NICE).
*Methods:* Over a 14-month period, all prisoners identified as having epilepsy were registered by prison primary healthcare services at a category 'C' prison holding 640 male adults. Prison and National Health Service health records were reviewed, prisoners were re-assessed by members of a specialist secondary care service based in the local general hospital NHS.
*Results:* Twenty-six prisoners were thought to have epilepsy. 61.5% of diagnoses had not been made by epilepsy specialists, 73.1% had uncontrolled seizures, only 19.2% had had computed tomography, none magnetic resonance imaging. At review, 30.8% of prisoners were thought to require neuroimaging, 19.2% cardiac investigations. The diagnosis of epilepsy was confirmed in only 57.9% of those prisoners considered to have the condition by prison healthcare services. 53.8% of those prisoners confirmed as having epilepsy had not had a medical review in the past 12 months; 63.2% required a change in their antiepileptic drugs (AEDs).
*Conclusion:* Although the prevalence of epilepsy in this prison population appeared high at first sight, a critical review of the diagnoses reduced the difference to the prevalence of epilepsy in the population at large. Fewer prisoners than expected achieved seizure control. Collaboration with specialist epilepsy services was poor.

* Corresponding author. Tel.: +44 114 2712306; fax: +44 114 2713158.
*E-mail addresses:* phil.tittensor@msgh-tr.wmids.nhs.uk (P. Tittensor), j.collins@sth.nhs.uk (J. Collins), r.a.grunewald@sheffield.ac.uk (R.A. Grünewald), markus.reuber@sth.nhs.uk (M. Reuber).
[1] Tel.: +44 178 5230239.
[2] Tel.: +44 114 2712306; fax: +44 114 2713158.


doi:10.1016/j.seizure.2007.07.002

There were significant discrepancies between the healthcare provision in prison and the NICE epilepsy guidelines.


## Introduction

The primary purpose of a prison is to detain people denied their liberty by the application of the law. Prisons are not intended to reduce prisoners' access to healthcare. In fact, it is established government policy in the UK that healthcare provision for prisoners should meet the standards developed for the population at large.[1] In the UK the National Institute for Clinical Excellence (NICE) has been charged with developing such standards. In 2004 it published guidelines for the diagnosis and management of the epilepsies in adults in primary and secondary care.[2] The recommendations in these guidelines are graded according to the level of supporting evidence (see Table 1).

We were concerned about the many barriers, which exist to the provision of optimum epilepsy healthcare in prisons (including the reluctance of professionals to venture into the custodial environment, lack of clear referral routes, and reluctance of hospital-based services to respond to referrals from a prison or to provide outreach services). We undertook this audit to describe the prevalence and nature of seizure disorders in a typical UK prison and to examine how the standards of diagnosis and management of epilepsy in prison compare to the NICE guidelines for this disorder.

## Methods

The audit resulted from a collaboration of a Clinical Nurse Specialist (CNS) in Epilepsy based at the local NHS hospital (PT) and a prison nurse based with the client group (JC). The prisoners were identified and reviewed for the purpose of this audit between June 2004 and August 2005. The audit was approved by South West Staffordshire Primary Trust.

### Setting

The audit was carried out in a medium level security (category C) prison, housing 640 sentenced male adults. The prison was split into two distinct units with separate healthcare provision. In line with common prison practice, prisoners were placed in these units depending on their behaviour and/or the nature of their conviction (e.g. those convicted of sexual offences have to be segregated for their own protection). Prison healthcare was fragmented further by separate regimes within individual wings, with resources allocated according to the perceived risk and need of the prisoner group. Healthcare was delivered by one part-time Medical Officer (a General Practitioner), and a small team comprising of a mixture of Health Care Officer's (HCO's, prison officers who have completed a short course in general health care) and Registered Nurses (RN's). There were no inpatient facilities, and healthcare staff were based on the different wings between the hours of 07.30 and 20.45. There was no resident medical cover overnight.

### Case identification

During the audit period the treatment sheets of all prisoners passing through the institution were examined for evidence of Anti Epileptic Drug (AED) prescribing. The results of this search were cross-referenced against the Inmate Medical Record (IMR) to ensure the AED prescribing was related to seizure

**Table 1** Grading of recommendations by the UK National Institute of Clinical Excellence

| Grade | Definition |
|---|---|
| A | Directly based on category I evidence (meta-analysis of randomized controlled trials (RCTs) or at least one RCT) |
| B | Directly based on category II evidence (at least one controlled trial without randomization or at least one other quasi-experimental study) or extrapolated from category I evidence |
| C | Directly based on category III evidence (non-experimental descriptive studies) or extrapolated from category II evidence |
| D | Directly based on category IV evidence (expert committee reports or clinical experience of respected authorities) or extrapolated from category III evidence |
| N | Recommendation based on NICE guideline or technology appraisal |
| GPP | Good practice point based on the clinical experience of the Guideline Development Group |