

Can district-wide audits improve primary care epilepsy management? An audit of seizure frequency recording

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SUMMARY

A district-wide epilepsy audit in general practice showed that levels of seizure frequency recording were too low to evaluate the quality of control of epilepsy. A repeat audit after multi-faceted interventions showed an improvement in seizure frequency recording of 13.2% (CI = 8.9 to 17.6) from 54.7% to 68%. This illustrates the difficulties of evaluating quality of care using routine records and the problems of implementing changes in general practice.

Keywords: epilepsy; audit; quality of care.

Introduction

EPILEPSY is an important condition to audit because it is common, dangerous, unpleasant, expensive, and its present care leaves much room for improvement. Primary care should play a central role in epilepsy management, particularly monitoring and recording seizures and taking appropriate action when optimal control has not been achieved. Previous general practice studies have shown many deficiencies in epilepsy care.¹

By itself, feeding back results is only partially successful, but multifaceted approaches with local planning, specific educational strategies, and consultation-based prompts have been shown to improve care.² Integrating these strategies to improve epilepsy care in general practice within a district has not, so far, been described.

Method

Bradford and Airedale Medical Audit Advisory Group (MAAG) covers an urban and inner-city population of 487 500 with 98 practices and 258 general practitioners (GPs). Thirty-one per cent of the population attracted deprivation payments.

In a pilot study, seizure frequency recording was often vague or absent so the concept of 'seizure status' was developed to standardise recording and allow inter-practice comparisons. To make it easier for patients and doctors to quantify seizures, clear, understandable bands of seizure frequency were chosen rather than actual numbers of seizures. The bands were: (a) no seizures in the last year; (b) some in the last year but fewer than one per month; (c) at least one per month but fewer than one per week; and (d) more than one per week. This classification is practical

and easy to use in a routine annual review, yet allows clinically useful changes in frequency to be recorded. The sole criterion for the audit was that there should be a record of seizure status within the last year.

In 1992, the facilitator invited all 98 practices within the Bradford Family Health Services Authority to participate, assisted practices in compiling an epilepsy register, and audited the records. She then fed back the results and encouraged practices to discuss the findings, use a consultation prompt,³ plan improvements, and set standards for the next audit. Multidisciplinary workshops accredited for postgraduate educational allowance were arranged to present the results and encourage practices to share ways of making improvements. The audit was repeated in 1994. The Statistical Package for Social Sciences was used to calculate confidence intervals and perform logistic regression analysis.

Results

Ninety-eight practices were approached and 36 participated in the first audit, with 27 (28%) completing a second audit. The participating practices differed only in the number of partners. The 27 participating practices had a combined list size of 175 000. Of the 27 practices, 21 improved their seizure frequency recording and six became worse (Table 1).

Discussion

The recording of seizure frequency as an outcome measure is as important for epilepsy as the recording of blood pressure in hypertension to assess the quality of care. Seizure frequency is a meaningful measure that is strongly associated with well-being, since the fewer seizures that are experienced, the smaller the impact that epilepsy has on a patient's life.⁴ If results from practices are to be compared over time or with each other, seizure frequency recording needs to be standardised and accessible. Clinical governance will make this even more important.

This is the first time that an improvement in seizure frequency recording has been shown in a large-scale audit. The method of recording seizure status can be recommended since the classification made data collection and analysis much simpler.

This audit has shown that the recording of seizure frequency improved modestly by 13.2%, but, with information available in only 68% of cases, not enough to gain an overall picture of epilepsy control. Less than one-third of practices took part in both audits despite efforts to maximise participation and minimal requirement of time and resources from practitioners.

There are no magic bullets for improving the quality of health care.⁵ District-wide audits initiated and organised from outside practices seem unlikely, by themselves, to successfully remedy deficiencies in disease management in primary care. It is likely that the best results will come from a multifaceted approach to implementation that identifies and addresses the obstacles to change.⁶ Other ways to improve care include computer-based protocol prompts, mini-clinics in the practice run by GPs or practice nurses, use of specialist liaison nurses, and community

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Table 1. Results of audits.

	Number with epilepsy	Seizure frequency recorded (%)	Percentage improvement
First audit	968	530 (54.7)	
Second audit	924	627 (68.0)	13.2 (CI = 3.0-14.8)

epilepsy clinics for a group of practices. Research is urgently needed to discover the most effective way of improving the management of epilepsy and other chronic diseases in the community.

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