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Nurse specialist treatment of eye emergencies: Five year follow up study of quality and effectiveness

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Abstract The role of specialist nurses in triage, diagnosis and management of emergency eye conditions is well established, and encouraging reports of the safety and effectiveness of such services have been published. Specialist nurses in an emergency eye clinic in the UK seeing >7000 patients per year had been found at initial evaluation to treat 22% of the 1976 patients seen over a three month period without referring on to an ophthalmologist. A repeat of this evaluation five years later found this proportion had dropped to 17% ($\chi^2 = 16.7$, $p < 0.01$). In addition, the initial evaluation had found no incident of any patient having been treated and discharged by the specialist nurses returning to the department due to incorrect diagnosis or mismanagement. By contrast, from the sample 5 years later, 3 patients were identified who returned to the department due to possible misdiagnosis or sub-optimal management. We suggest that provision must be made for continuing professional development of nurses in

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this type of extended role, and the commitment to ongoing education should be backed up by a system of monitoring and critical incident reporting to facilitate skill maintenance and the life long learning process for specialist nurses.

Introduction

The role of specialist nurses in emergency eye service provision is well established. Many reports now exist demonstrating the usefulness of specialist nurses in triage of patients with emergency eye problems (Banerjee et al., 1998; Marsden, 2000; Cheung et al., 2002; Rossi et al., 2008) and in improving the quality of referral to specialist eye services from general accident and emergency (A&E) departments (Ezra et al., 2005). There are also good examples of institutions where nurse specialists independently diagnose and manage significant proportions of patients presenting to emergency eye services without the need for referral to an ophthalmologist (Jones et al., 1986; Ilango et al., 2000; Buchan et al., 2003). The high quality of service provided by specialist nurses has frequently been reported, with one study finding the patient management by nursing staff to be more evidence based than that of the ophthalmologists (Kirkwood et al., 2005; Bhatt and Sandramouli, 2007).

Initiatives involving extended roles for nurses within the emergency setting are often enthusiastically received and initial reports may be encouraging, but attention must also be paid to the ongoing support and development of the staff in those roles. This study investigates the change-over time in the effectiveness of nurse specialists within an emergency eye care service and asks whether adequate attention is paid to continuing professional development for the staff involved.

Background

The nursing staff involved in emergency eye care provision are usually experienced ophthalmic nurses from within departments, given appropriate additional training in diagnosis and management of frequently presenting conditions. The proportion of emergency eye patients thereby seen exclusively by nurses varies in published reports from 17–69% (Jones et al., 1986; Banerjee et al., 1998; Ilango et al., 2000; Buchan et al., 2003; Bhatt and Sandramouli, 2007). This variation is a result of case mix, local protocols guiding the decision to treat or refer on, and the level of confidence and experience of the nurses involved in the various schemes.

When a department decides to have nurses acting as independent practitioners, diagnosing and treating ophthalmic emergency patients, published reports describe an initial training of already experienced eye nurses in the use of slit lamp and appropriate practical procedures such as corneal foreign body removal (Jones et al., 1986; Ilango et al., 2000; Buchan et al., 2003). No mention is made, however, of continuing professional development for nurses working in this role to facilitate the life long learning process that is an essential part of skill maintenance.

A system of specialist nurses triaging and managing emergency eye patients was established in our department in 1996, serving a predominantly urban population in northern England, UK. The specialist nurses involved in the emergency eye care service see all patients attending in the first instance. Patients are triaged according to degree of emergency, and only those patients who can not be managed by the nurses alone are referred on to the ophthalmologists. Evaluation of this service conducted in 2003 found it to be both safe and effective, with 22% of patients being seen exclusively by nursing staff, and no incident of inappropriate diagnosis or management being identified (Buchan et al., 2003), but the walk-in service led to big variation in the numbers of patients attending at each 3.5 h session, often resulting in long waiting times.

Following this evaluation, in order to better spread patients out throughout the 10 weekly sessions, the emergency eye service moved to a booked emergency appointment system where appointments could be made by staff in A&E, General Practitioners, Optometrists, or patients themselves contacting the department directly, normally on a same day or next day basis. We aimed to book 15 patients per session, but urgent cases were still to be fitted in as extras when the need arose.

Re-evaluation of this emergency eye service was carried out 5 years later, with the same nursing staff involved in delivering the service. We were specifically interested to see whether there was any evidence of an increase in numbers of patients being managed exclusively by specialist nurses with a further 5 years experience of this role, or whether the lack of any active ongoing investment in training had led to a reduction in quantity of patients seen or an increase in mistaken diagnosis and consequent patient return visits. We were also interested in assessing the impact of the change in the rules of access on the case mix presenting.

Methods

The same methodology used in our previously published evaluation of the emergency eye service (data collected from 2001) was employed.(Buchan et al., 2003) This same method of assessing safety of a specialist nurse emergency eye service by identification of re-attendances has also been utilised by other investigators (Kirkwood et al., 2005).

Details of all patients seen by the emergency eye service in March, April and May 2006 were extracted by examination of clinic registers. The numbers of patients seen in each of the 10 weekly sessions were recorded. Those patients managed exclusively by the specialist nurses were identified and their case records examined to determine the diagnosis and management plan. Search of the computerised patient administration system (PAS) which captures all patient attendances was conducted at least one year later to determine how many patients seen exclusively by a specialist