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## Pen torch test in patients with unilateral red eye

Sir,

A red eye often presents a diagnostic problem in general practice and it is important to identify those conditions which require ophthalmic referral. The presence of pain, visual loss and unequal pupil size usually indicates more serious eye conditions. 1,2 Nevertheless, distinguishing between mild and serious ocular problems can sometimes be difficult. A simple pen torch test was designed to assist in such situations. If photophobia can be induced by a relatively minor light source it may be an indication of more significant ocular inflammation.

A pilot study of the test was undertaken among 100 adult patients who presented to the accident and emergency department at the Birmingham and Midland Eye Hospital with non-traumatic unilateral red eye. Prior to ophthalmic examination, a standard pen torch powered by two AAA batteries was shone directly into one eye from a distance of 15 cm for two seconds. If the patient reported that any, including minimal, additional discomfort had been induced, the test was taken to be positive. The test was then repeated for the other eye. A randomization list was used to decide which of the two eyes would be tested first. An ophthalmic examination was then performed and the patients divided into two groups — those with mild eye conditions and those with serious eye conditions. Each group comprised patients with three diagnoses. Statistical analysis was performed using the chi square test.

The results of the study are summarized in Table 1. For the group of patients with serious eye conditions the test was positive in 68% of cases compared with only 5% in the group with mild eye conditions  $(\chi^2 = 43.2, P < 0.001)$ . No positive results were obtained when the light was shone in the contralateral, unaffected eye. There was no association between age and a positive test result. The pen torch test was able to detect 95% of patients without serious eye diseases (specificity) and 68% with serious eye diseases (sensitivity). Using these results, the probability of having a serious eye condition given a positive test is 88% (predictive value of positive test).

A positive test result could not be explained by pupillary spasm alone as the light reflex is consensual, therefore, a positive result would have been expected when the light was shone in the contralateral, unaffected eye. Glare, secondary to reduced clarity of the media, may have a role to play in the response.

A survey drawn from an ophthalmic accident and emergency department might be biased towards more severe or partially treated eye diseases. Nevertheless, these results suggest that the pen torch test could complement existing examination techniques and be an aid in distinguishing between mild and serious ocular problems. A similar study in the general practice setting would be interesting.

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## References

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## Care of patients with schizophrenia

Many people with schizophrenia lose contact with psychiatrists after hospital discharge.1 General practitioners are usually involved in their psychiatric, as well as physical, care.2 Heavy smoking, drug side effects and self neglect combine to increase physical illness in schizophrenia.3 Such patients cannot always be relied upon to present themselves for care appropriately.

Table 1. Pen torch test results for 100 patients with non-traumatic, unilateral red eye.

	No. of	A. G. a		
Diagnosis	Positive test	Negative test	— Median ve age (years)	
Mild eye				
conditions				
Subconjunctiva	l			
haemorrhage	0	10	65	
Conjunctivitis	3	48	39	
Episcleritis	0	5	41	
Total	3	63	41	
Serious eye conditions				
Keratitis	8	5	44	
Anterior uveitis	14	6	48	
Angle closure				
glaucoma	1	0	60	
Total	23	11	48	

The care of patients with schizophrenia in one general practice, with a list size of 9800 and with three full-time and four job-sharing partners, was reviewed. Computer diagnostic entries and psychotropic drug prescriptions identified 29 schizophrenic patients (15 men and 14 women, mean age 46 years, range 22 to 78 years).

The care of patients was assessed against the following criteria— continuity: each patient should see their own doctor each time they consult; regular contact: each patient should be seen by their doctor at least six-monthly; structured review: each patient should be reviewed regularly, for physical, mental, and social needs; preventive care: schizophrenic patients should be offered the same preventive care as other patients; and drug review: use of major tranquillizers should be reviewed by a psychiatrist every two years. Practice records of patients with schizophrenia were compared with a control sample without mental illness, matched for age, sex and registered doctor.

For schizophrenic patients, 72% of entries were in their own doctor's handwriting, compared with 59% for controls.