A Decision Tree Helps Nurse Practitioner to Manage Acute Red Eyes in the Emergency Department

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Keywords:  
Red eye  
Algorithms  
Nurse practitioners

Introduction  
Emergency Nurse Practitioners (ENPs) have hesitated in treating acute red eye(s) in a local Emergency Department. The Edinburgh Red Eye Diagnostic Algorithm is the only validated tool to assist non-ophthalmologists to make diagnosis.

Objectives  
This study investigates the usefulness of a modified version used by ENPs.

Methodology  
This is a prospective cohort study comparing red eye patients seen by ENPs with the aid of the algorithm to those seen by emergency doctors. Patient-reported symptom severity and symptom resolution were obtained on the day of consultation and one week after via telephone interview.

Result  
50 patients of the ENP group and 130 patients in the doctors’ group were recruited. Obvious reduction in symptom severity was seen in both groups (>70% in both groups reported moderate to very severe discomfort on day 0; ~90% in both groups reported none or mild discomfort on day 7). There was no between group difference (p=.548). Symptom resolution was reported in 96% in the ENP group and 98.5% in the doctor’s group, the difference was not statistically significant (p=.309). Conclusions: The modified Edinburgh Red Eye Algorithm helps ENPs to safely manage red eye patients with a performance no worse than emergency doctors.