Sandwell and West Birmingham Hospitals NHS
NHS Trust

THE PROCEDURE TO ALLEVIATE DISCOMFORT / HARM DUE TO THE EXPOSURE OF THE EYES TO CS GAS (SEE DEFINITIONS USED)

PROFILE	
REFERENCE NUMBER:	BMEC/Ophth/019
VERSION:	2
STATUS:	Approved
ACCOUNTABLE DIRECTOR:	Divisional Director – Surgery B
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DATE OF LAST REVIEW/ ORIGIN DATE:	May 2007
DATE OF THIS REVIEW:	January 2009
APPROVED BY:	Divisional Governance Group - Surgery B Drugs and Therapeutic Committee
DATE OF APPROVAL	May 2009
IMPLEMENTATION DATE:	May 2009
DATE NEXT REVIEW DUE:	May 2012
REVIEW BODY:	Ophthalmic Team
CATEGORISATION:	Ophthalmology/Birmingham and Midland Eye Centre
PRINCIPAL TARGET AUDIENCE:	BMEC Staff
ASSOCIATED TRUST DOCUMENTS:	n/a

1.0 Introduction

1.1 Occasionally patients will present to the ophthalmic accident and emergency department having been exposed to CS gas. This can cause great discomfort and distress requiring a speedy response by nursing staff to alleviate discomfort and reduce anxiety.

2.0 Aim / Purpose

2.1 To alleviate the discomfort of CS gas to the eyes as quickly as possible and reduce any consequential ophthalmic trauma.

2.2 To minimise anxiety and distress to the patient exposed to CS gas.

2.3 To minimise secondary exposure to other patients, relatives and staff.

3.0 Objectives

3.1 The procedure will be carried out by a suitably trained nurse familiar with ophthalmic procedures.

3.2 Equipment for the procedure will be collected together before beginning the procedure:

- Adjustable fan or hairdryer (set on cool & low speed)
- Patient chair preferably with a head rest
- Means of magnification e.g. loupe or slit lamp and blue cobalt light
- Box of tissues
- Box of fluorescein 1 mg ophthalmic strips (Fluorets®)
- Diluent of sodium chloride 0.9% sachet (Normasol®)

3.3 Patient's notes and or casualty card at hand to document care delivered.

4.0 Definitions used

CS Gas – Chlorobenzalmalononitrile (chemical formula $C_{10}H_5\ CIN_2$)

Fluorets® – fluorescein impregnated filter paper

5.0 Specific detail / procedure

5.1 Isolate patient from other patients, relatives, visitors and staff in a suitably ventilated room ideally with window and open door access to natural fresh air, to avoid accidental dispersal of CS gas to others.

NOTE: Ensure other personnel are not down wind of the open door.

5.2 Explain procedure to the patient and likely course of events then remove ‘top clothing’ that has been exposed to CS gas and place in a sealed bag or hang in a well-ventilated area to ‘air’.

5.3 Seat the patient in a chair with the head well supported, ideally near an open window and or outside door, to ensure patient’s comfort and safety.

5.4 Place the fan or hold a hairdryer at eye height in a safe position, set on cool and switch on, to ensure correct air direction enabling the evaporation of CS gas as soon as possible. Nurses should stand up wind of the fan or hairdryer to avoid being affected by the CS gas.

5.5 Continue fan therapy to enable the evaporation of irritating harmful gases to the eyes, observing the patient regularly until stinging has subsided (20–40 minutes).

5.6 On completion of fan therapy a full ocular examination of the eyes should be carried out, to exclude any other ocular injuries or conditions requiring treatment. This will include the use of fluorescein staining (a diluent of sodium chloride 0.9% (Normasol®) may be needed), to ascertain whether the corneal epithelium has been damaged.

5.7 Discuss health education issues regarding the use of and avoidance of exposure to CS gas, to avoid a replication of exposure to CS gas.

5.8 If CS gas canister is brought in, the nurse should wear gloves then handling with extreme delicacy to avoid destroying evidence, place the canister in a sealable ‘evidence’ bag and store safely, to await collection by the police and to avoid accidental exposure to others.

5.9 Ensure the evidence bag number is clearly documented in the patient’s notes or casualty card. (evidence bags are stored in ophthalmic A&E department office)

5.10 Inform local police station (see appendix 1 for contact number) that there is a CS gas canister for collection, to ensure correct and safe disposal of ‘fire arms’ in accordance with the relevant legislation.

6.0 Training

6.1 All ophthalmic nurses will receive instruction in this procedure during their ophthalmic course.

6.2 General trained nurses who have undergone in-house education and instruction in this procedure will be allowed to carry out the procedure under supervision. Further practice under supervision and competency

assessment completion will allow the nurse to undertake this procedure unsupervised.

7.0 Finances

Financial implications are likely to be minimal.

8.0 References

Ballantyne B (1997) Riot Control Agents; Biomedical and Health aspects of the use of chemicals in civil disturbances*. Medical Ann*ual 1997; 7-14

Bhattacharya S, Hayward A (1993) C S gas – implications for the anaesthetist. *Anaesthesia* 1993; 45 896-7

O'Driscoll A, Shah P, Aggarwal R, Chell P, Hope-Ross M, McDonnell P(1995)
Ophthalmic trauma due to alkaline substances. *B.A.I.J*, 310-943

Williams M. (1994) One Minute Wisdom. All you need to know about C S gas. *Nursing Standard* 8, (37) 39

APPENDIX 1

Telephone number for local police who need to be informed as soon as possible that there is an evidence bag containing a ‘firearm’ to be removed from the hospital.

TELEPHONE NUMBER

Contact: 0845 1135000 (Main Summerfield Centre) then

City site: ask for the help desk at Rose Road police station.

Sandwell site: ask for the help desk at the West Bromwich police station

EVIDENCE BAGS

These are stored in ophthalmic accident and emergency department office. Further evidence bags can be obtained from site policeman currently PC Bill Langford (27.04.09)