Bronllys Hospital, Bronllys, Brecon, Powys, LD3 0LU

This Protocol must only be used by registered healthcare professionals who have been named and authorised by their organisation to practice under it. The most recent and in date final signed version of the Protocol should be used. Healthcare professionals should always access the Protocol via the PTHB internet to ensure that they are working to the most up to date version

Protocol

for the administration of

Minims Fluorescein Sodium 1% eye drops solution

by registered nurses for

the detection of ophthalmic foreign bodies, lesions and abrasions

to **Adults and Children aged from 2 years**

in Powys Teaching Health Board (PTHB) Minor Injury Units

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Accountable Executive:	Medical Director	
Approved By:	Local signatories (see p.3)	
Approval Date:	21/12/2024	
Document Type:	Protocol	Clinical
Scope:	Authorised registered nurses in PTHB MIUs	

Do not print this document. The latest version will be accessible via the internet. If the expiry date has passed, please contact the Author for advice**.**

Change history

Version number	Change details	Date
MMP 466 V1	New protocol produced, as a PGD is not required for administration of a P medicine. Review content and title of PGD 0004G according to current versions of reference sources and transfer into protocol format. Inclusion criteria changed to those over 2 years old, to reflect the age of individuals seen by PTHB MIUs.	21/11/2024

Protocol authorisation

Name	Job title and organisation	Signature	Date
Senior doctor **Dr Kate Wright**	Lead doctor for PTHB	DocuSigned by: Kate Wright 1F267952823F473...	11/28/2024
Chief Pharmacist **Jacqui Seaton**	Chief Pharmacist for PTHB	Signed by: Jacqui Seaton 71E8089DE3634C4...	11/21/2024
Senior representative of professional group using the Protocol **Claire Roche**	Executive Director of Nursing and Midwifery for PTHB	DocuSigned by: Claire Roche F07413E114E04B1...	11/28/2024
Clinical Governance Lead **Amanda Edwards**	Clinical Governance Lead for PTHB – Assistant Director for Innovation and Improvement	DocuSigned by: Amanda Edwards 74A4E51A42E9473...	12/3/2024

Appendix A provides a staff permitted to use protocol accreditation sheet. Individual practitioners must be authorised by name to work to this Protocol.

The final authorised copy of this Protocol should be kept by PTHB for 25 years after the Protocol expires.

Training and competency of registered health professionals

Qualifications and professional registration	Practitioners must only work under this Protocol where they are competent to do so. Practitioners working under this Protocol must also be a registered healthcare professional with the following body: • Nurses currently registered with the Nursing and Midwifery Council (NMC) and working in a Minor Injury Unit (MIU) in PTHB Current contract of employment with PTHB. Practitioners must also fulfil the training and Additional requirements listed below. Check Appendix A – Staff permitted to use the Protocol accreditation sheet to confirm whether all practitioners listed above have organisational authorisation to work under this Protocol.

Initial training	• The administration of Minims fluorescein sodium 1% eye drops solution and knowledge of its uses, contraindications and adverse effects • Undertaken organisation approved training and successfully completed the competencies to enable the practitioner to make a clinical assessment to establish the need for the medication covered by this Protocol • Knowledge of the current guidelines on management of suspected superficial corneal injury (refer to the 'Eye emergencies' chapter of the MIU Clinical Guidelines). Additionally, practitioners: • must be authorised by name as an approved practitioner under the current terms of this Protocol before working to it • must have undertaken appropriate training for working under Protocols for administration of medicines. • must be familiar with the product and alert to changes in the BNF (https://bnf.nice.org.uk) and Summary of Product Characteristics (www.medicines.org.uk) • must have undertaken training appropriate to this Protocol as required by local policy • must have undertaken and completed at least level 2 Safeguarding of Children, Young People and Vulnerable Adults - Training and Competency Passport, as applicable to the role • must be competent in the recognition, management and reporting of recognised adverse reactions, including anaphylaxis. Must be competent in the administration of adrenaline and have up to date Intermediate Life Support (ILS) skills • must have access to the Protocol and associated online resources **THE PRACTITIONER MUST BE AUTHORISED BY NAME, UNDER THE CURRENT VERSION OF THIS PROTOCOL BEFORE WORKING ACCORDING TO IT.**

Competency assessment	Individuals operating under this Protocol must be assessed as competent (see Appendix A). The individual must complete a self-declaration of competence in their Personal Appraisal and Development Review (PADR) – the **personal development plan** (yellow) section of the PADR booklet should be used to record competency. Practitioners must be competent, recognise their own limitations and personal accountability and act accordingly. Evidence of training in ILS and anaphylaxis. Individuals operating under this Protocol are personally responsible for ensuring they remain up to date with the use of the medicine included in the Protocol - if any training needs are identified these should be discussed with the senior individual responsible for authorising individuals to act under the Protocol and further training provided as required.
Ongoing training and competency	• Update at least every 2 years, or earlier in response to new local/national guidance, on the use of Protocols and Minims fluorescein sodium 1% eye drops solution and the assessment and management of suspected superficial corneal injury as per MIU Clinical Guidelines. • Practitioners must ensure they are up to date with relevant clinical skills and management of anaphylaxis and ILS. • Completion and submission of Continuous Professional Development (CPD) as required by NMC, which must be retained and made available on request. • Compliance with all mandatory NHS training including safeguarding at the level relevant to the role. • Evidence of ongoing / refresher training to be submitted to line manager annually. **It is the responsibility of the healthcare professional to maintain their own competency to practice within this Protocol.**
The decision to administer any medication rests with the individual registered practitioner who must abide by the Protocol and any associated organisation policies.	

Clinical Condition	
Clinical condition or situation to which this Protocol applies	As a diagnostic stain in ophthalmic conditions for the detection of lesions/abrasions and foreign bodies (when there is no indication for immediate referral– see NICE CKS). Fluorescein does not stain a normal cornea. It stains as follows: • **Conjunctival abrasions** stain yellow or orange • **Corneal abrasions / ulcers** stain bright green when viewed with a cobalt-blue filter • **Foreign bodies** are surrounded by a green ring **NB:** This Protocol should be used in conjunction with the 'Eye emergencies' chapter of the MIU Clinical Guidelines and Proxymetacaine hydrochloride 0.5% eye drops PGD 0195, where applicable. **It is the responsibility of the administering nurse to ensure that the individual is within the inclusion criteria, and that there are no reasons for exclusion before proceeding with the medication. If there is any reason for concern, seek medical advice. These tasks cannot be delegated and so the registered nurse making the decision to administer the medication under this protocol must carry out administration to the individual.**

Inclusion criteria	• Adults and children aged from 2 years old who require the management of eye injuries such as: ○ detection of foreign bodies in the eye or ○ diagnosis of conjunctival epithelial damage or ○ diagnostic examination of corneal abrasions. • Medical and drug history taken, no reason for exclusion. Informed consent, from the individual or a person legally able to act on the person's behalf, must be obtained prior to administration. NB Refer to PTHB Consent to Treatment and Examination Policy. In case of any doubt, contact medical team or emergency services. **Refer to exclusion criteria,** NICE CKS **and** MIU Clinical Guidelines **for injuries that must be referred to Ophthalmology (A&E or Eye casualty).** Any vulnerable adult or child protection concerns should be referred to Safeguarding and PTHB safeguarding policies followed. Where there are safeguarding concerns (Child Protection or Protection of Vulnerable Adults (POVA)), advice from the local Safeguarding team should be sought (see below).

Exclusion criteria (Exclusion under this Protocol does not necessarily mean the medication is contraindicated, but it would be outside its remit and another form of authorisation will be required)	• Ophthalmic condition outside the remit of the 'Eye emergencies' chapter of the PTHB MIU Clinical Guidelines for treatment of eye injuries/conditions • Ophthalmic conditions as listed in NICE CKS that require referral to an ophthalmologist • Suspected penetrating eye injury • Severe eye emergencies where bleeding is present • Any red flag symptom or sign for a serious eye condition such as severe pain, pupillary abnormalities or a significant reduction in visual acuity, hyphema (blood in the anterior chamber) or hypopyon (inflammatory exudate in the anterior chamber), large or deep abrasions, or corneal opacities – these would all require immediate referral to the emergency eye service • Contact lenses in situ • Pregnancy and breastfeeding • Children under 2 years old • Known hypersensitivity to Minims fluorescein sodium 1% eye drops solution and/or to any of the excipients in the medicinal product • No valid consent or individual/representative refuses treatment. Individuals for whom valid consent, or 'best-interests' decision, in accordance with the Mental Capacity Act 2005, has not been obtained or received. Refer to sections "Action to be taken if individual is excluded" or "Action to be taken if individual declines treatment".

Cautions /reasons for seeking further advice from a prescriber	• Systemic absorption can be reduced by applying pressure on the lacrimal punctum for at least a minute following the instillation of the drops
	• Discard contents of minim after single use
	• Remove contact lenses before instillation of eye drop; soft contact lenses must not be reinserted until the effects of the drops have completely worn off
	• Indications for discussion with ophthalmology regarding urgency of referral include:
	  ○ Superficial corneal injury due to contact lens use.
	  ○ Recurrent erosion syndrome.
	  ○ Persistent or worsening symptoms after 24 hours.
	  ○ Rust rings that remain after removal of a metallic foreign body.
	• Have a low threshold for referral of young children who may not be able to explain symptoms or are reluctant open their eye for examination.
	
	Note: entry wounds may be impossible to see.
	
	Under Section 128 and 130 of the Social Services and Wellbeing (Wales) Act 2014, staff have a duty to inform the Local Authority if they have reasonable cause to suspect that an adult or child is at risk. Any vulnerable adult or child protection concerns should be referred to Safeguarding and PTHB safeguarding policies followed. Consider discussing with GP.
	Any safeguarding concerns need to be directed to Safeguarding Hub:
	• to generic email address: PowysTHB.Safeguarding@wales.nhs.uk
	and
	• Central Safeguarding number: 01686 252806
	• Out of hours: 0345 0544847
	
	Advice can also be sought from local Safeguarding leads.

Action to be taken if individual excluded	• Explain reason to individual/carer. • Record reason, seek medical advice, and record any advice given. • If appropriate refer to GP / DGH (A&E or eye casualty) / Out of Hours Service/ optometrist; offer alternative management, if appropriate.

Action to be taken if individual declines treatment	• Explain consequences of refusing treatment. • Inform or refer to alternative sources of treatment (A&E, eye casualty, Out of Hours Service, optometrist, or GP) as appropriate, following local procedures. Offer alternative management if appropriate. • Document refusal and any advice given. Complete a Discharge Against Advice form, if appropriate. • Where appropriate, complete the letter on the WPAS system and send to the GP.
Arrangements for referral for medical advice	• Refer to emergency eye service (A&E or eye casualty) on the same day, if suspected penetrating eye injury or intraocular foreign body suspected. • Contact or refer to GP/ Optometrist/ Out of Hours Service for advice, if applicable. Document advice given.

Details of the medicine

Name, form and strength of medicine	Minims fluorescein sodium 1% eye drops solution. Each Minims unit contains approximately 0.5ml of solution. Single-use, sterile eye drops.
Legal category	Pharmacy Only (P) Medicine
Off label use	Medicines should be stored according to the conditions detailed in the Storage section below. However, in the event of an inadvertent or unavoidable deviation of these conditions the local Medicines Management team must be consulted. Where medicines have been assessed by Medicines Management in accordance with national or specific product recommendations as appropriate for continued use this would constitute off-label administration under this Protocol. The responsibility for the decision to release the affected medicines for use lies with Medicines Management.
Route/Method of Administration	• Topical – eye drop. • Check expiry date of drops; once opened, use immediately. • Instill one drop at a time into the eye to be examined. Do not allow the tip of the minim to touch the eyelid or other surface. • Sufficient solution should be applied to stain the damaged areas.

Route/method of administration	• Each Minims unit should be discarded after a single use. • Special care must be taken to avoid microbial contamination. *Pseudomonas aeruginosa* grows well in fluorescein solutions. • After application of the drops, applying pressure on the lacrimal punctum for at least a minute can reduce nasolacrimal drainage and therefore decreases systemic absorption. • Excess solution may be washed away with sterile saline solution. • If fluorescein staining appears to stream or change colour, refer immediately as this is indicative of a penetrating globe injury.
Dose and frequency	• Place **ONE** or **TWO drops** into the examined eye(s) Use sufficient amount to stain damaged areas.
Quantity to be administered	Single application of one or two drops
Maximum or minimum treatment period	Single application of one or two drops
Storage	Each Minims unit should be discarded after a single use. Stock must be securely stored according to organisation medicines policy and in conditions in line with the SPC, which is available from the electronic Medicines Compendium website: www.medicines.org.uk • Store below 25ºC • Do not freeze • Store in the original package to protect from light
Drug interactions	No interaction with other medicinal products is known.

Identification, management and reporting of adverse effects	**NB.** Adverse reactions are very rare (<1/10,000), including isolated reports. A detailed list of adverse reactions is available in the BNF and the product's SPC, which is available from the electronic Medicines Compendium website: www.medicines.org.uk. Symptoms of allergic-type reactions and anaphylaxis have been reported following topical ophthalmic administration of fluorescein sodium and may manifest as: • Eye disorders: allergic conjunctivitis, peri-orbital oedema • Immune system disorders: anaphylactic reaction • Skin and subcutaneous tissue disorders: urticaria, rash. Following administration of the eye drops, the individual may experience: • temporary staining of surrounding tissue • transient blurring of vision on instillation Healthcare professionals and individuals/carers are encouraged to report suspected adverse reactions to the Medicines and Healthcare products Regulatory Agency (MHRA) using the Yellow Card reporting scheme on: http://yellowcard.mhra.gov.uk or search for MHRA Yellow Card in the Google Play or Apple App Store. For established medicines, serious adverse events in adults or all suspected adverse reactions in children that may be attributable to the medication should be reported. Report any suspected adverse reactions to a doctor. In the case of an acute anaphylactic reaction occurring, adequate treatment provision must be available for immediate use: Anaphylaxis and resuscitation equipment including adrenaline (1 in 1000) injection and a working telephone must be available. In case of anaphylaxis: • Refer to adrenaline PGD 0017 and anaphylaxis procedure • Request medical assistance urgently. If the GP is not immediately available dial 999 to transfer to A&E • Ensure reaction is fully documented in individual's notes • Ensure all individual's records are marked **ALLERGIC TO FLUORESCEIN**. • The individual may be advised to wear a MedicAlert or similar device to alert other healthcare providers • Report via Datix Once for Wales Reporting system

Records to be kept	Record consultation details as required by local procedures. In addition, record: • That valid informed patient consent to treatment was obtained or a decision to treat was made in the individual's best interests in accordance with the Mental Capacity Act 2005. Record name of representative who gave consent, if appropriate. • Name of individual, address, date of birth. • GP contact details where appropriate. • Relevant past and present medical history, including medication history, known allergies and nature of reaction. • Any reasons for exclusion or referral, including advice given and actions taken. • Examination finding/s, where relevant. • Name and signature of registered health professional responsible for administration • Date and time of administration • Name, form, strength of drug administered • Route of administration, detailing application site and approximate volume (1 or 2 drops) of fluorescein sodium 1% sterile eye drops administered • Expiry date(s) • Details of any adverse reactions and actions taken • Advice given about the medication including side effects, benefits, and when and what to do if any concerns. • Any advice received from medical cover and advice given to individual / carer. • Record that medication was administered via Protocol, record Protocol title and version number Records should be signed and securely kept for a defined period in line with local policy. All records should be clear, legible and contemporaneous. A record of all individuals receiving treatment under this Protocol should also be kept for audit purposes in accordance with local policy.

Patient information

Written/verbal information to be given to individual or carer	Provide PIL (Patient Information Leaflet) and draw the individual/carers' attention to it. Explain the procedure and inform the individual/carer of the result.

	Explain contraindications and cautions as documented in the PIL plus expected duration of the effect. Prior to treatment advise the individual that the eye drops may cause transient blurring of vision. Provide the individual/carer with appropriate information on aftercare. After treatment advise the individual that any staining will wash off. A sterile eyewash may be used to wash away any excess solution. If the individual experiences blurring of vision they must not drive or operate hazardous machinery until their vision is clear. Contact lenses can't be worn if a corneal abrasion is detected and ideally not until abrasion has completely healed. Soft contact lenses may be worn once the effects of the drops have completely worn off, if the condition allows- refer to MIU Clinical Guidelines. If relevant, advice should be given on suitable eye protection to prevent injury in the future. The individual should be advised to avoid rubbing or touching the eye and contact lenses until the eye recovers. If no improvement of red eye within 48 hours, if condition deteriorates, or any unusual symptoms occur the individual should attend optician/optometrist, A&E or eye casualty, or contact the GP for further advice. If individual has an abrasion, follow up should be arranged in 24 hours to ensure the abrasion is healing as expected — the individual should be advised to seek urgent medical review if symptoms worsen or new features develop in the interim. If the individual is receiving any concomitant medication or treatment, it is the responsibility of the nurse to ensure that treatment with the drug detailed in this Protocol is appropriate. If in any doubt advice should be sought and recorded before the drug is administered. Advise individual about appropriate oral pain relief and prevention of secondary infections with good hygiene. **NB.** All individuals should be advised to seek medical review / contact their GP if there are signs of complications from secondary infections, e.g. fever, chills, muscle pain, vomiting, diarrhoea, abdominal pain.

Follow-up advice to be given to individual or carer	• Refer to MIU Clinical Guidelines. • Following assessment of surface corneal injury and removal of corneal surface foreign body, antibiotic prophylaxis with chloramphenicol may be required (refer to PGD0035) and MIU Clinical Guidelines. • If fluorescein staining appears to stream or change colour, refer immediately as this is indicative of a penetrating globe injury. • Inform individual of possible side effects and their management. • If symptoms do not improve or worsen, or individual becomes unwell, if there are any signs of infection, unexpected reaction, or any other cause for concern, seek medical advice immediately. Contact GP via surgery or emergency on call service/111 out of hours service or A&E or eye casualty or Optician as appropriate.

Key references

- British National Formulary (BNF) and British National Formulary for Children (BNFC) - accessed 05/11/2024
- Minims Fluorescein sodium 1% eye drops solution:
  - Summary of product Characteristics (SPC) – available at www.emc.medicines.org.uk; last updated 28/07/2016
  - PIL available at https://www.medicines.org.uk/emc/product/1178/smpc; last updated June 2022
- NICE CKS Corneal Superficial Injury, last revised June 2022

Appendix A Staff permitted to use protocol accreditation sheet

Authorising Manager: I confirm that the practitioners named below have declared themselves suitably trained and competent to work under this Protocol. I give authorisation on behalf of Powys Teaching Health Board for the named healthcare professionals below who have signed the Protocol to work under it.
The authorising manager must use the competency checklist (below).

Practitioner: By signing this Protocol you are indicating that you agree to its contents and that you will work within it. Protocols do not remove inherent professional obligations or accountability. It is the responsibility of each professional to practise only within the bounds of their own competence and professional code of conduct.

I confirm that I have read and understood the content of this Protocol and that I am willing and competent to work to it within my professional code of conduct.

Printed name of registered health professional	Signature of registered health professional	Printed name of senior representative authorising health professional	Signature of senior representative authorising health professional	Date

The authorising manager should retain a copy of the list, which will be required for audit purposes. This list should be kept by PTHB for 25 years after the Protocol expires.

The healthcare professional should retain a copy of the document after signing.

Competency check list for manager or senior team lead to use as part of the authorising process for health professionals to work to a Protocol. Review of authorisation will take place on each Protocol update and at the individual's annual PADR.

Name: **Role:**		Sign / Initial	Further training identified (Y/N) Specify in " comment	Comments
1	The Protocol sign off is for the following Protocol:(document the exact title and Protocol number) _____			
2	We have discussed the expiry of the Protocol and are using a version accessed electronically			
3	The member of staff has the appropriate qualifications and professional registration as outlined in the Protocol			
4	The Protocol has been read in full by the staff member			
5	The identified training has been completed as specified in the Protocol and is in date			
6	We have discussed some examples of inclusion criteria and exclusion criteria			
7	The staff member is confident in the administration method and doses			

Staff member print & sign name		Date
Manager or senior team lead to print & sign name		Date

Please send a copy of this completed form to individual's line manager, to the staff member, in conjunction with the Protocol Appendix A staff accreditation sheet. A copy of this form should also be kept by service lead in the training file.