

Equine Corneal Ulcers

Triage, cytology, treatment intensity, SPL use, recheck timing, and referral - source-mapped practitioner guide

EQU-OPH-CU-01
V1



FIRST MOVE

Stain every painful eye.

Fluorescein for every horse with ocular pain; then manage pain, prevent secondary infection, and monitor closely. C001

DEPTH

Side-view curvature matters: normal contour, flattening, indentation, or rim-only staining around non-staining Descemet membrane. C009

SAMPLE

For complicated ulcers, collect culture/sensitivity and cytology from the active ulcer margin. C006 C007

DO NOT OBSCURE

Avoid third-eyelid flap or temporary tarsorrhaphy when progression must be monitored. C053

DECISION TREE

Painful eye: sedate/block as needed, fluorescein stain, and examine in a dark setting. C001 C002 C010

Foreign body search: palpate deep fornices and behind the third eyelid; anesthetize before sampling and avoid cotton-tipped applicators for cytology. C003 C008

Simple path: quiet eye, clear surrounding cornea, mild hyperemia/discharge, superficial epithelial defect. C011

Complicated path: melting, overt infection, severe reflex uveitis, stromal infiltrate, or depth >=50%. C014 C021 C022

Fungal path: cake-frosting surface or deep moat/furrow; start antifungal empirically when suspected. C031 C032

Abscess path: fluorescein-negative infiltrate with marked pain/reflex uveitis; avoid topical steroid. C044

Rupture path: bulge, pigment, blood, fibrin plug, shallow chamber, very low IOP, or positive Seidel. C049

DEPTH / ACTION MATRIX

FINDING	WORKING CATEGORY	IMMEDIATE ACTIONS	RECHECK / ESCALATION
Superficial	Quiet eye, clear surrounding cornea, mild discharge or hyperemia. C011	Topical antibiotic 3-4 times daily; no steroid-containing neopolybac; atropine once or once daily if needed; short systemic NSAID course. C016 C017 C018	Recheck 3-5 days. Should be healed or strongly healing. C019
Complicated	Melting, overt infection, severe reflex uveitis, infiltrate, or >=50% stromal depth. C014 C021 C022	Culture/sensitivity + cytology; consider SPL; aggressive antimicrobials at least 6 times daily, often 6-8 or 8-10. C006 C023 C028	Home-care recheck in 36-48 h; refer if not improving. C041 C052
Fungal	Cake-frosting surface, fungal island/moat, or hyphae on cytology. C015 C032	Start antifungal empirically; voriconazole 1% is speaker's first choice. Silver sulfadiazine is a low-cost option. C031 C033 C034	Systemic antifungal when vascular ingrowth or rupture risk exists. C035
Melting	Jiggly, candle-wax, or frosted-doughnut cornea. C014	Treat as suspected infection. Add serum/plasma anti-collagenase at medication frequency, last in sequence. C036	Consider EDTA, N-acetylcysteine, or tetracycline effect if needed. C037
Abscess	Fluorescein-negative stromal infiltrate with marked pain/reflex uveitis. C044	No topical steroid; antimicrobial therapy, voriconazole where fungal concern exists, aggressive atropine/NSAID control. C045 C046	SPL strongly recommended; recheck in days; refer for graft/keratoplasty options. C047

REFERRAL TRIGGERS

- Non-responding infected or melting ulcer. C052
- Deep ulcer already >=50% depth. C052
- Ruptured eye outside comfort level. C052
- Deep stromal abscess not responding. C052
- Difficult immune-mediated corneal disease. C052

RUPTURE PROGNOSIS

- Poorer signs: severe keratomalacia plus rupture, nasty infection, wound >15 mm, limbal crossing, extensive hyphema, absent dazzle/consensual PLR, or lens rupture. C051
- Sealed perforations can heal; visual eyes may deserve a medical trial. C048

SPL CAUTIONS

- Place the footplate deep in the fornix; shallow placement can rub and cause a line-induced ulcer. C024
- Separate liquid medications by five minutes. C025

Source: Advanced Equine Ophthalmology Course transcript, 2025-02-15. Claim IDs map to `02_source_claim_map.csv`.

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Treatment Logistics and Escalation

Medication choices and procedural options preserved as speaker-sourced decision support

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MEDICATION REFERENCE		SPL AND HOME-CARE WORKFLOW		SYSTEMIC THERAPY NOTES	
		STEP	SOURCE-MAPPED INSTRUCTION		
<p>Simple topical antibiotic SIMPLE ULCER Use non-steroid topical antibiotic 3-4 times daily until epithelial healing. C016</p>	<p>Ciprofloxacin / chloramphenicol COMPLICATED ULCER Speaker-listed gram-positive/gram-negative coverage options. C026</p>	Place	Use heavy sedation, auriculopalpebral and sensory blocks, topical anesthetic, diluted Betadine, and deep fornix placement so the footplate cannot rub the cornea. C024	<ul style="list-style-type: none"> Systemic antifungal: consider with fungal vascular ingrowth or rupture concern. C035 Systemic antibiotics: not routine for avascular cornea, but useful with vascularized deep abscess, rupture concern, or penetrating injury. C040 Banamine beyond 1 week: check PCV/TS and creatinine at outset and about every 5 days. C054 	
<p>Cefazolin 55 mg/mL FORTIFIED GRAM-POSITIVE 1 g vial + 3 mL sterile water; add 3 mL concentrate to 15 mL artificial tears; refrigerate. C027</p>	<p>Voriconazole 1% FUNGAL CONCERN Human IV formulation; speaker's number-one antifungal for coverage, tolerance, and penetration. C033</p>	Dose spacing	Separate liquid medications by five minutes. C025		
<p>Silver sulfadiazine LOW-COST FUNGAL OPTION Cream can be placed on the eye; 1:9 sterile-water dilution may pass through SPL in a pinch. C034</p>	<p>Serum / plasma ANTI-COLLAGENASE Use with melting/breakdown concern at topical-med frequency; give last after at least 5 min. C036</p>	Air chase	Transcript describes following SPL medication with 2-3 mL air to advance drug to the eye and preserve contact time. C038		
<p>Flunixin meglumine COMPLICATED ULCER PAIN/UVEITIS 1.1 mg/kg twice daily for 3 days, then taper by response. C029</p>	<p>Atropine REFLEX UVEITIS Complicated ulcers usually BID until pupil opens, then once daily; stop for appetite/fecal-output/colic concerns. C030</p>	Line hygiene	Diluted Betadine through SPL morning/evening can clean the line and disinfect the eye; if line-loading without air, use ocular-surface Betadine instead. C039	<p>ADVANCED OPTIONS</p> <ul style="list-style-type: none"> Specialty/procedural options include corneal cross-linking, cryotherapy, keratectomy, conjunctival pedicle graft, amniotic membrane graft, and keratoplasty/transplant options. C043 C047 	
		Owner capacity	Hospitalize if owners cannot treat frequently; otherwise recheck home-managed infected eyes in 36-48 h. C041		
		Protection	If the horse rubs the eye, use an eye-protection mask. C042	<p>ADMINISTRATION SUPPORT</p> <ul style="list-style-type: none"> For liquid meds, flexing the horse's muzzle toward the girth can orient the eye for drops; syringe delivery through a broken-off needle must stay safely away from the eye. C055 	

NEVER SHORTCUT THE RECHECK
Simple ulcers should be healed or strongly healing by 3-5 days; unchanged or worse ulcers need a new diagnosis. C019 C020

INDOLENT IS A DIAGNOSIS TO EARN
Cotton-tipped applicator debridement can help non-healing superficial epithelial ulcers; avoid grid keratotomy. C013

SMALL CAN STILL BE INFECTED
A tiny ulcer with severe reflex uveitis should be assumed infected and sampled. C022

PRESERVE MONITORING
Third-eyelid flap or temporary tarsorrhaphy can hide progression in complicated eyes. C053

Normalized ASR terms are documented in '02_source_claim_map.csv' and '07_validation_report.md'. sponsor-free

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