

Open Globe Injury

Urgent Care
Emergency Department
Inpatient

Center for
Clinical Excellence

Open Globe symptoms include:

- Bullous subconjunctival hemorrhage
- Peaked and / or minimally reactive pupil
- Extrusion of ocular contents
- Mechanism of injury concerning for ocular or orbital penetration
- History of trauma and significant pain or reduction in visual acuity

*ED Antibiotics:

- Age ≥ 6 months:
 - Levofloxacin 10mg/kg/dose
- Age < 6months:
 - Vancomycin 15mg/kg/dose
- AND
- Ceftazidime 50mg/kg/dose

High Infection Risk:

- Intraocular foreign body
- Dirty wound
- Delayed closure
- Lens capsule violation
- Injury in rural setting

Discharge Criteria:

- Patient stable
- Tolerating PO abx
- Cleared by Ophthalmology

Concern for open globe injury

If suspected open globe injury, contact Ophthalmology immediately

Consult Ophthalmology
(if at UC, call via PCTC prior to transfer)
Consider Level 2 Trauma

Acute management

- Apply rigid eye shield
- Emesis control
- Pain management
- Elevate head of bed, if no contraindications

If significant agitation can be avoided:

- Place IV
- ED antibiotics*
- Tetanus (if not UTD)

If high suspicion for globe injury:

- Do not apply significant pressure to the globe or eyelids
- Do not administer ocular meds

Foreign body suspected or ophthalmology request?

Yes

CT Orbit +/- CT Head without Contrast

Discuss details of imaging with ophthalmology

No

Admit to Trauma

Operative repair per Ophthalmology

High infection risk?

Yes

Needs Additional Abx at conclusion of primary repair:

- Moxifloxacin 0.5% injected into AC
- Vancomycin 1 mg/0.1 ml and ceftazidime 2.25 mg/0.1 ml intravitreal

No

Ophthalmology Evaluation at least POD 1

If tolerates PO, transition to Oral Levofloxacin

Discharge home

Levofloxacin for a total of 7 days
Close follow-up with Ophthalmology

References

- Benchmark protocols for managing eye trauma. Available at: <https://eye.hms.harvard.edu/eyeinsights/2014-april/benchmark-protocols-managingeye-trauma>.

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Clinical Pathway Development

This clinical pathway was developed using the process described in the NCH Clinical Pathway Development Manual Version 6, 2022. Clinical Pathways at Nationwide Children's Hospital (NCH) are standards which provide general guidance to clinicians. Patient choice, clinician judgment, and other relevant factors in diagnosing and treating patients remain central to the selection of diagnostic tests and therapy. The ordering provider assumes all risks associated with care decisions. NCH assumes no responsibility for any adverse consequences, errors, or omissions that may arise from the use or reliance on these guidelines. NCH's clinical pathways are reviewed periodically for consistency with new evidence; however, new developments may not be represented, and NCH makes no guarantees, representations, or warranties with respect to the information provided in this clinical pathway.

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