QIPS PATIENT SAFETY CONFERENCE

# A Near-Miss in Pediatric Ocular Trauma

*Patient Safety Event Review & Root-Cause Analysis*

**Department of Ophthalmology · University of Arizona, Tucson**

Resident education in patient safety · ACGME Common Program Requirements VI.A.1
Case fully de-identified for educational use

WHY WE'RE HERE

# Objectives for Today

## The ACGME Mandate

Common Program Requirements VI.A.1 require programs to embed patient safety and quality improvement into training.

Residents must know how to report events, participate in root-cause analyses, practice disclosure, and contribute to QI.

### Reconstruct the event

Build a detailed timeline; pinpoint where the system failed.

### Classify the event

Near miss vs. no-harm event vs. adverse event.

### Run a root-cause analysis

Use a fishbone (Ishikawa) to find contributing factors.

### Report & protect reporters

Know the workflow — and uphold a just culture.

THE CASE · DETAILED TIMELINE

# Timeline: Injury to Recovery

| | |
|---|---|
| **6/22/26 · daytime** | Struck in the left eye by a sibling with a stick (paint-stirrer–like); unwitnessed |
| **6/22 · 18:34** | Triaged in the Emergency Department |
| **6/22 · 20:50** | EM resident exam — tetracaine, fluorescein + Woods lamp; read as 2 corneal + 1 conjunctival abrasion |
| **6/23 · 00:18** | Discharged: erythromycin, return precautions, next-day ophthalmology referral |
| **6/23 – 6/25** | **Referral gap — no evidence the urgent referral reached the eye clinic** |
| **6/25 · 08:15** | Ophthalmology exam — shallow AC temporally, microhyphema, oval pupil, linear cornea abrasion, negative Seidel |
| **6/25 · midday** | CT orbits normal → to BUMC for EUA and possible globe repair. CT normal. |
| **6/25 · 14:30** | OR / EUA — 3 mm, ~70–80%-depth corneal laceration, self-sealed → fibrin glue + bandage lens |
| **6/26 · POD 1** | 20/400 LE, Seidel negative, 2+ cell/flare; antibiotic + steroid + cycloplegic continued |
| **6/29 · POD 4** | 20/30 sc RE, 20/40 sc LE; laceration healing, eye quiet; continue close follow-up |
| **7/23 · 1 month** | 20/20 sc RE, 20/30 sc LE; residual ~3 mm corneal scar; possible LE amblyopia→4M cycloplegic refraction. |

DETAILED TIMELINE · 6/22 – 6/23/26

# Injury & Emergency Department Course

**18:34** Triaged

**20:50** Resident exam

**00:18 (6/23)** Discharged

## History (per mother)

- Struck in the left eye earlier that day by his brother with a stick; unwitnessed
- Came to mother with bloody tears; would not open the left eye; photophobia and pain
- Lay on the couch; one episode of emesis; no analgesia given
- Vitals normal for age (RR 30 — upper limit for a 5-yo; fits pain/distress); resistant to exam

## ED examination

- After repeated tetracaine: fluorescein strips + Woods-lamp exam
- Two corneal abrasions + one conjunctival abrasion; vision grossly normal
- Pupils round and reactive OU; pertinent negative charted: “no teardrop pupil”
- EOM full; lids normal; periorbital redness attributed to eye rubbing; eye flushed

### DIFFERENTIAL AS CHARTED

1 Corneal abrasion · 2 Corneal ulcer · 3 Ocular foreign body · **4 Ruptured globe** · 5 Conjunctivitis

**Disposition:** discharged on erythromycin ointment; return precautions (swelling, redness, pain, pupil-shape or vision change); clinic address/phone given, with instructions to call if not contacted by the next day. Clinic Contact Info and precautions on D/C instructions.

DETAILED TIMELINE · 6/23 – 6/25/26

# The Referral Gap & the Diagnosis

## The gap

**No evidence the urgent referral ever reached the eye clinic.**

The safety net depended on the family calling the clinic.

The child was evaluated 6/25 at 08:15 — roughly 2.5 days after ED discharge, and ~3 days after the injury.

## Ophthalmology exam — 6/25/26, 08:15

**Vision:** 20/20 cc RE, 20/125 cc LE High LE myopia/anisometropia — autorefraction RE -1.00 + 0.25 x 53, LE −9.50 +2.50×159; no acuity on autorefraction or spectacle neutralization of spectacle recorded.

**IOP:** 19 RE / 18 LE **Stereo (Titmus):** +fly, 1/3 animals, 0/9 circles (reduced)

**Pupils:** RE 5→4.5 round; **LE 4→3.5 oval / long** **EOM/CVF full BE, External exam normal BE**

**Slit lamp, LE:** 3+ cell; inferior (6 o'clock) blood drop, shallow AC with superotemporal iris–cornea touch; 3 deep linear corneal abrasions.

**Dilated:** RE normal; LE normal centrally (no peripheral exam). **→ To BUMC for CT + EUA + possible ruptured-globe repair.**

**What changed the picture:** oval/peaked pupil · shallow AC · microhyphema

DETAILED TIMELINE · 6/25 – 6/29/26

# Operative Findings & Early Recovery

### 6/25 · CT orbits

Normal — no radiographic globe rupture or intraocular foreign body.

### 6/25 · 14:30 · OR / EUA

3 mm temporal corneal laceration, ~70–80% depth; wound self-sealed, no aqueous leak. AC formed with localized temporal shallowing posterior to the wound; no iris–cornea touch. Fibrin glue + bandage contact lens.

### 6/26 · POD 1

20/400 LE, IOP 9, Seidel negative, 2+ cell/flare; RE normal. Continued moxifloxacin QID, prednisolone QID, cyclopentolate daily (LE); f/u in 3 days with the surgeon.

### 6/29 · POD 4

20/30 sc RE, 20/40 sc;  IOP 17/14. Laceration healing, no cell/flare; dilated normal OU; pupils round/reactive, EOM full.

**Partial-thickness (near-perforating) laceration — the globe was intact and healing well.** *One-month outcome follows.*

DETAILED TIMELINE · 7/23/26 — ONE MONTH

# One-Month Follow-Up & Final Outcome

## Ophthalmology exam — 7/23/26, 08:00

**HPI:** doing well; off all drops.

**Vision (uncorrected):** 20/20 RE, **20/30 LE**

**IOP:** 17 RE / 21 LE **Stereo (Titmus):** Fly +, 1/3 animals, 3/9 circles (improved)

**Pupils:** RE 6→5, LE 4→3; no RAPD OU **EOM / CVF:** full OU

**External:** normal. **Undilated exam:** normal OU.

**Slit lamp, LE:** peripheral superotemporal corneal scar ~3 mm; AC deep and quiet; lens clear; anterior vitreous quiet and clear.

## Impression & plan

IMPRESSION

- Traumatic iritis — resolved
- Corneal scar, LE
- Possible amblyopia, LE

PLAN

Return in 4 months for cycloplegic refraction.

**The residua are from the injury itself.** Because the laceration self-sealed, the diagnostic delay did not add harm.

SAFETY CONCEPTS

# What Kind of Event Was This?

### Near miss

An event that could have reached the patient and caused harm, but did not — caught by chance or a downstream check.

### No-harm event

An event that reached the patient but caused no detectable injury.

### Adverse event

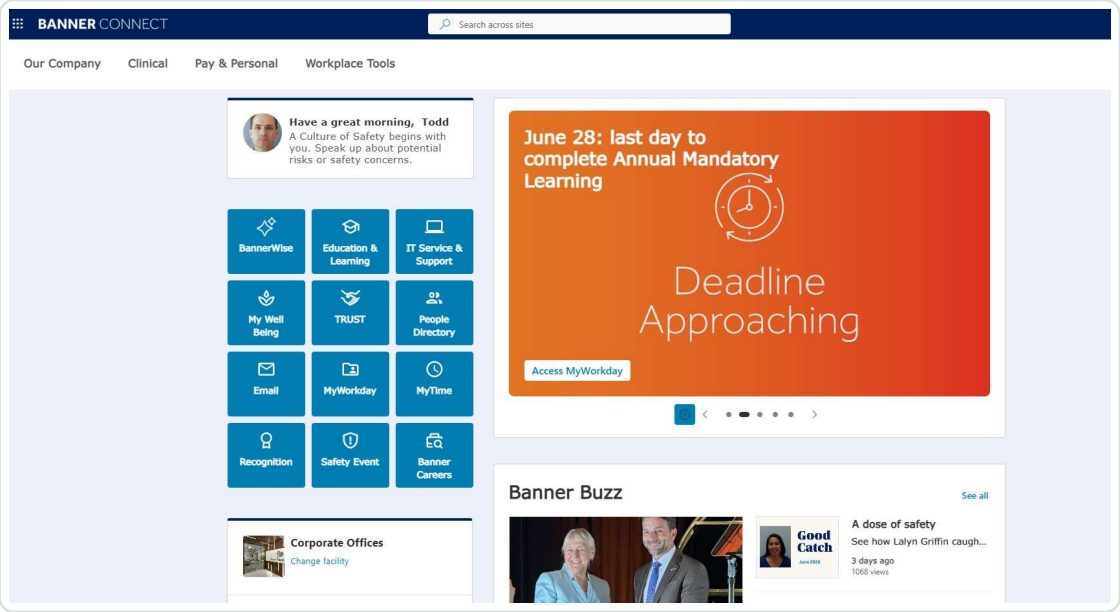
An event that reached the patient and caused harm.

## Our read: a high-severity near miss (“good catch”).

A near-full-thickness corneal laceration was read as simple abrasions and went to outpatient referral, undiagnosed for ~2.5 days, with ruptured globe on the ED differential. Harm was plausible and serious, yet did not materialize. Near misses are reportable and especially valuable: they expose system weaknesses without a patient having to be hurt first. Report them with the same rigor as adverse events.

HOW WE REPORT · STEP 1

# Start in Banner Connect




## Open the intranet

From the Banner Connect homepage, look in the app tiles (or under Workplace Tools).

## Find “Safety Event”

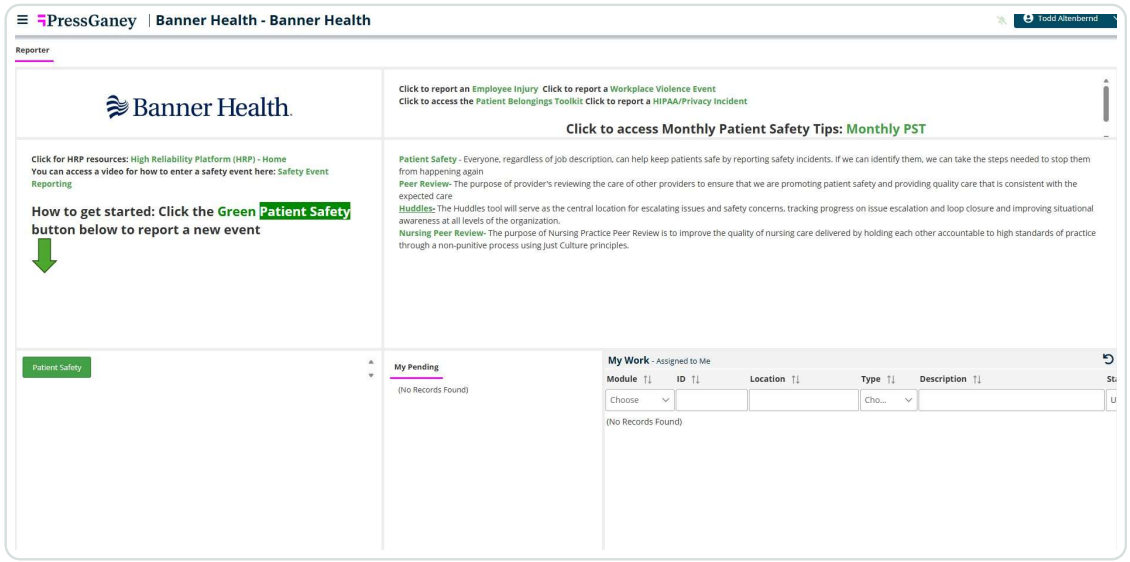
Select the Safety Event tile — it launches the Press Ganey High Reliability Platform (HRP).

## Anyone can report

Every team member, regardless of role, is expected to speak up and report concerns.

HOW WE REPORT · STEP 2

# File the Event in the HRP Reporter




### Click the green “Patient Safety” button

It opens a new event report. Other paths exist for Peer Review, Huddles, injuries, and HIPAA.

### Describe what happened

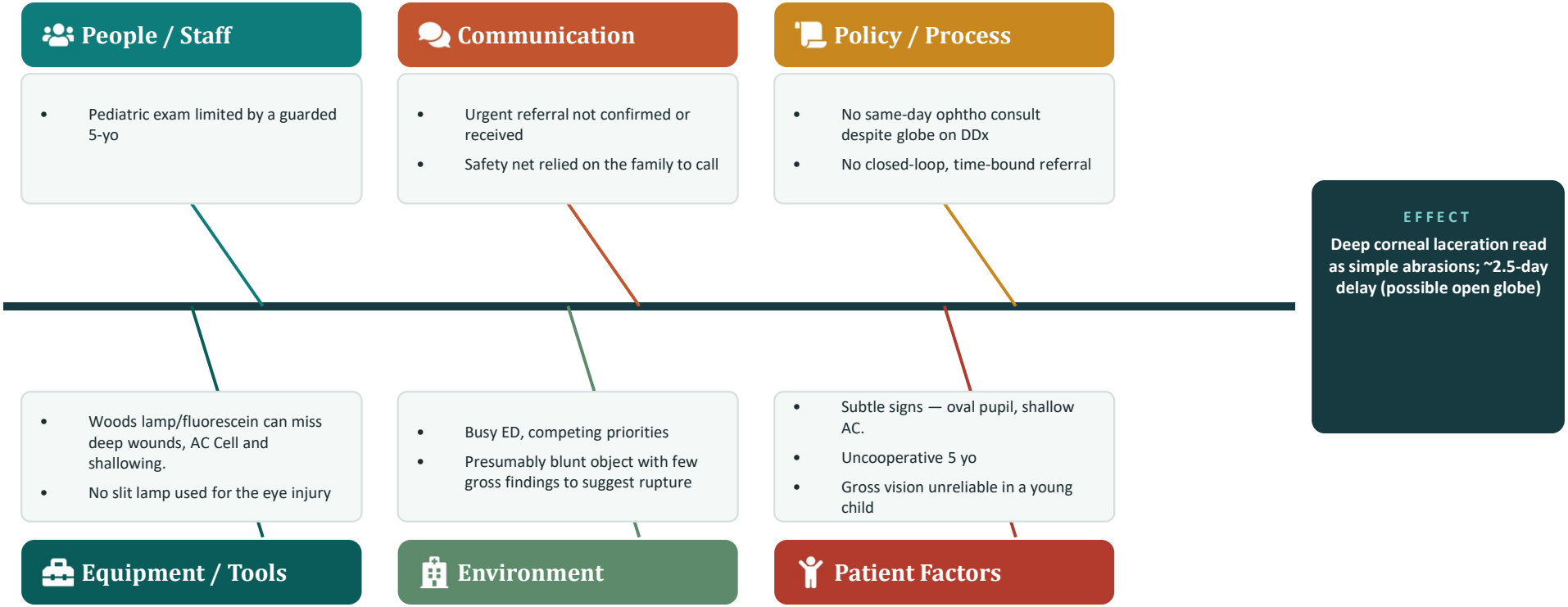
Capture who, what, when, where, the event type, and the contributing factors — facts, not blame.

### Submit — including near misses

Reports support a non-punitive, just-culture review. Confidential reporting options are available.

ROOT-CAUSE ANALYSIS

# Fishbone (Ishikawa) Analysis



CLOSING THE GAPS

# From Causes to Countermeasures

| CONTRIBUTING FACTOR | COUNTERMEASURE |
| --- | --- |
| Globe on DDx, no consult | When open globe is on the differential, get a same-day ophthalmology evaluation — don't defer to outpatient referral. |
| Referral not confirmed | Closed-loop referral: confirm the consult reaches the eye clinic; give an explicit timeframe; don't rely on the family. Why was order for a consult not followed through? Who triages for the ED? |
| No slit-lamp exam | For eye injuries, standardize slit-lamp + Vision + careful pupil and anterior-chamber assessment; low threshold to consult<br>All unwitnessed sharp object eye injuries in children get an ophthalmology consult. |
| Subtle signs missed | Teach open-globe red flags: peaked/oval pupil, shallow AC, hyphema, decreased vision, deformed globe, significant periocular hemorrhage. |
| Gross vision in kids | Don't rely on gross vision in young children; document best available acuity and escalate when unsure. Make sure that the child is NOT peeking with the uninjured eye. |
| Loop not closed | Feed findings back to the involved departments via QIPS; track referral loop-closure as a metric. |

THE HARD PART OF REPORTING

# Reporting Without Fear: The Retaliation Problem

## The friction

- When one department reports another's lapse, the reported team can feel accused.
- That can breed defensiveness, strained relationships, or retaliation against the reporter.
- Fear of blowback is one of the biggest reasons events go unreported — and the system stops learning.

## The safeguards

- Just Culture: separate human error and at-risk behavior (coach & redesign) from rare reckless behavior.
- Non-punitive, confidential, and anonymous reporting options.
- An institutional non-retaliation policy that protects reporters.
- Leadership & QIPS frame it as shared system learning — invite the other department into the RCA, don't indict them.

***We critique the process, not the person.***

CLOSING THE LOOP

# Disclosure & the Training Value

## Disclosure to the family

- ACGME requires that house staff be trained to disclose adverse events and have chances to practice.
- Communicate transparently and empathetically about the injury and the delayed diagnosis.
- Honesty preserves trust, supports the family, and is the right thing to do — independent of outcome.

## ACGME requirements this meets

- Adverse-event & near-miss reporting
- Participation in a root-cause analysis
- Action planning to fix system gaps
- Disclosure of events to patients/families
- Quality improvement & systems-based practice

DISCUSSION

# Key Takeaways

### If open globe is on the differential, act on it.

Obtain a same-day ophthalmology evaluation — don't discharge to an outpatient referral.

### Close the loop on urgent referrals.

Confirm the consult reaches the eye clinic and give a timeframe; don't lean on the family.

### Kids hide the signs.

A guarded exam and subtle findings — oval pupil, shallow AC — demand a low threshold to escalate.

### Near misses are gold — report them.

A good outcome doesn't mean a safe process. Log it in HRP, and protect the reporter.

*Questions? What would you have done differently at the ED visit?*