Supplemental Table 1. Variables utilized and ocular or periocular conditions encountered in the patient cohorts studied to develop the Hawkeye Orbital Fracture Prioritization and Evaluation (HOPE), HOPE with Computed Tomography interpretation by ophthalmology (HOPE+CT), and published algorithms.

Algorithm	Variables	Requirement	Injury Classification (Conditions Designed to Identify)
UTH[A] (n = 512 patients)	Decreased Vision Blurry Vision Limited Extraocular Motility Pain with Eye Movement	Must have at least 2 of 4 of the variables (signs/symptoms)	***Severe Ophthalmic Injury (71 patients)*** Angle Recession Hyphema Muscle Entrapment Open Globe Injury Optic Nerve Injury Retinal Detachment Retrobulbar Hemorrhage Vitreous Hemorrhage
STOP[B] (n = 378 patients)	Radiographic Exam Findings Open Globe Retrobulbar Hematoma Extraocular Muscle Entrapment Roof Fracture Subjective Exam Findings Pediatric Patient Decreased Vision Diplopia Physical Exam Eyelid Laceration Pupillary Defects Motility Deficits Oculocardiac Reflex Hyphema	Presence of any 1 or more radiographic, subjective, or physical exam findings	***Emergent Clinical Feature (number of patients)*** Orbital Roof Fracture (49) Retrobulbar Hemorrhage (40) Entrapment Concern (39) Open Globe (5) Retinal Detachment (1) ***Surgical and Non-Surgical Intervention*** Globe Exploration (4) Entrapment Repair (13) Bedside Laceration Repair (22) Canalicular Repair (2) Bedside Canthotomy and Cantholysis (11) Antimicrobial Treatment (14) IOP Management (11) Lubrication (6) Hyphema Management (4) Retinopexy (1)
MEE[C] (n = 500 eyes)	Subconjunctival Hemorrhage or Chemosis Injury with a Foreign Object Orbital Roof Fracture Unable to Count Fingers at 1-2 ft Double Vision Looking Straight Ahead	Presence of any 1 or more findings (if patient is not alert, only use the first 3 findings for assessment)	***Substantial Ocular Injury (number of eyes)*** Commotio Retinae (37) Retrobulbar Hemorrhage (29) Large Corneal Abrasion >1 mm (12) Hyphema (12) Optic Neuropathy/rAPD (11) Intraretinal Hemorrhage (8) Open Globe Injury (5) IOP ≥ 30 mm Hg (4) Muscle Entrapment (3) Dislocated Lens (3) Vitreous Hemorrhage (3) Conjunctival Laceration (1) Traumatic Iritis (1) Choroidal Rupture (1)
HOPE[D] (n = 134 patients)	Relative Afferent Pupillary Defect Subconjunctival Hemorrhage Visual Acuity Foreign Body Injury Motility Deficit Medial Wall Fracture Age in Years Number of Fractured Orbital Walls Gender Eyelid Laceration Mechanism of Injury	Input of findings into algorithm suggests urgent evaluation based on optimized threshold in the calculator	***Injury Requiring Urgent Evaluation (number of eyes)*** Orbital Compartment Syndrome (7) Open Globe Injury (4) Retrobulbar or Orbital Hemorrhage (4) Extraocular Muscle Entrapment (2) Corneal Thermal Injury (1) ***Other Ocular Injuries (number of eyes)[E]*** Commotio Retinae (10) Traumatic Mydriasis (7) Hyphema (4) Traumatic Iritis (4) Choroidal Rupture (2) Intrapapillary Hemorrhage (2) Retinal Dialysis (1) Retinal Hemorrhage (1) Subretinal Hemorrhage (1) Subhyaloid Hemorrhage (1)
HOPE+CT[D] (n = 134 patients)	Retrobulbar Hemorrhage Ability to Count Fingers at 3 ft Extraocular Muscle Entrapment Foreign Body Injury Subconjunctival Hemorrhage Orbital Floor Fracture	Input of findings into algorithm suggests urgent evaluation based on optimized threshold in the calculator	

[A]UTH was intended for non-ophthalmologists to identify patients at risk of "severe ocular injury" who need urgent ophthalmology consultation.
[B]STOP was intended to identify patients who would need ophthalmic intervention, patients with urgent ophthalmic conditions, and patients with diplopia or subjective change in visual acuity.
[C]MEE identified patients with substantial ocular injury who needed an urgent ophthalmic examination.
[D]HOPE and HOPE+CT were designed to identify patients who potentially needed an urgent intervention.
[E]Other ocular injuries that occurred in the HOPE and HOPE+CT patient cohort but were not considered urgent.
Abbreviations: University of Texas Health Science Center at Houston (UTH), South Texas Orbital Fracture Protocol (STOP), and Massachusetts Eye and Ear (MEE)

Supplemental Table 6. Each patients' mode of transportation to the study institution (n = 134).

Mode of Transport	Patients (%)
Ground Ambulance	86 (64.2%)
Private Vehicle	19 (14.2%)
Air Ambulance	17 (12.7%)
Unknown	12 (9.0%)