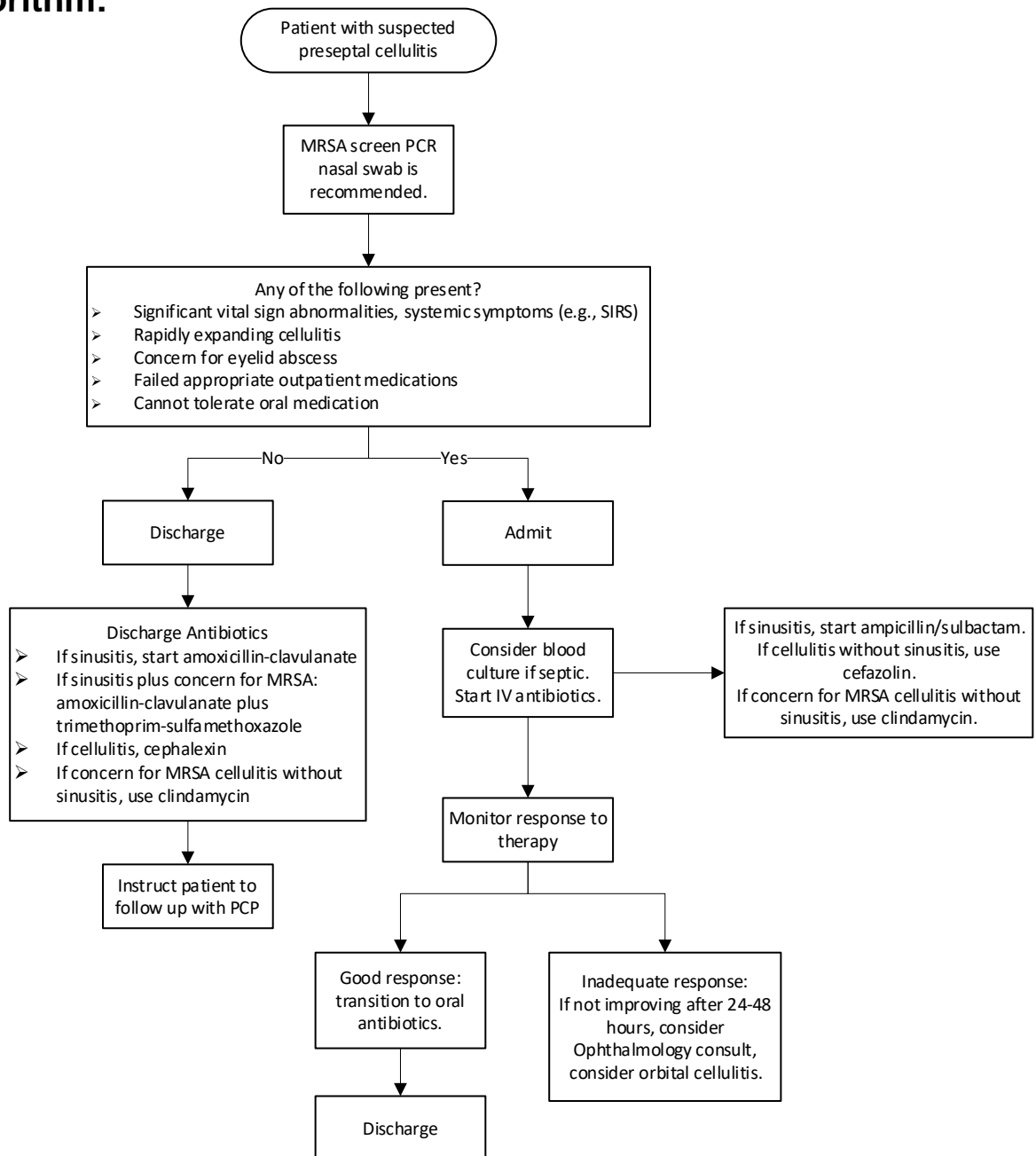
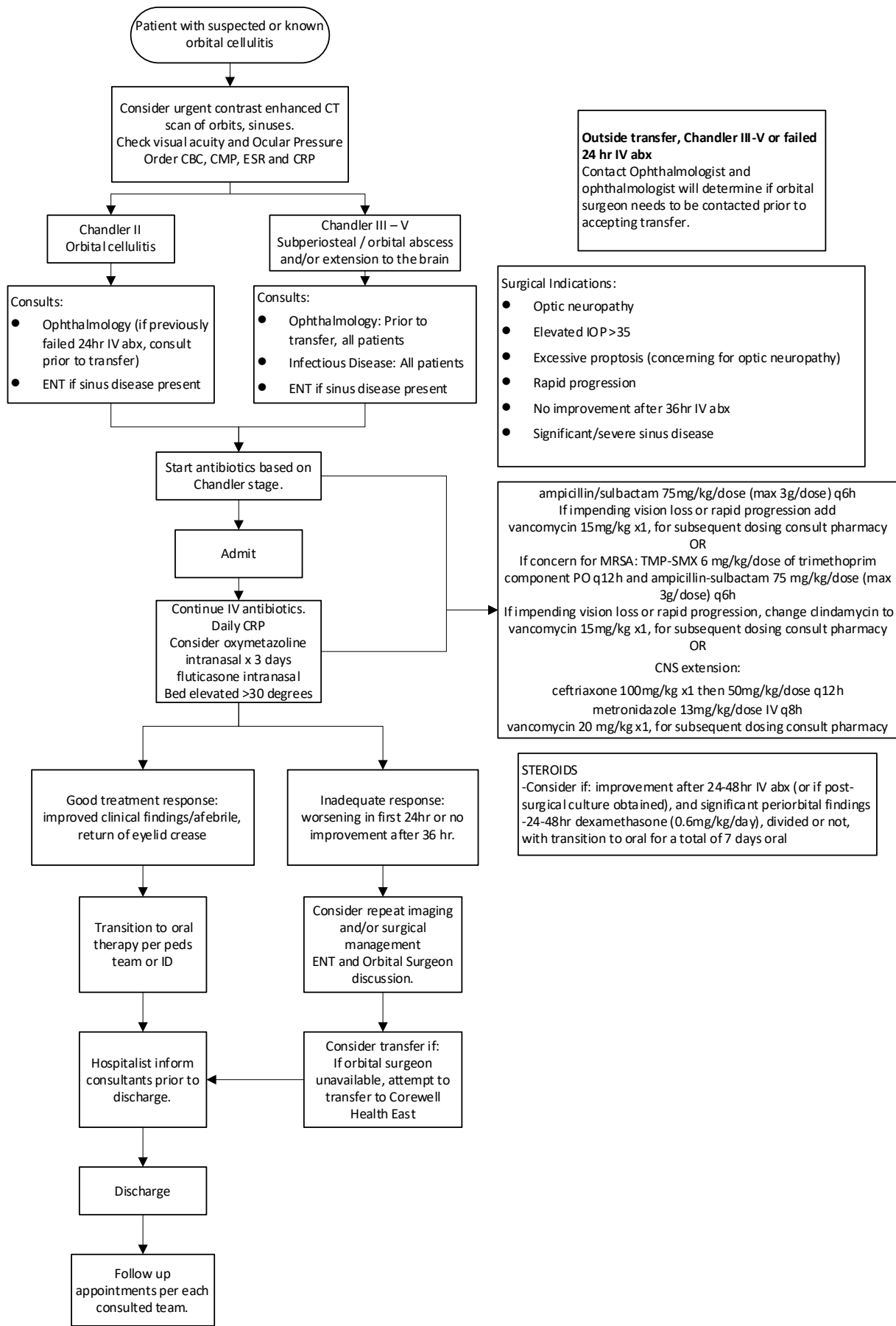


PRESEPTAL AND ORBITAL CELLULITIS, PEDIATRIC, ED AND INPATIENT

Updated: June 28, 2023

Clinical Algorithm:





Clinical Pathway Summary

CLINICAL PATHWAY NAME: Preseptal and Orbital Cellulitis, Pediatric, ED and Inpatient

PATIENT POPULATION AND DIAGNOSIS: Patients under the age of 18 years old, diagnosed with pre-septal or orbital cellulitis.

APPLICABLE TO: Corewell Health West, HDVCH and Regionals

BRIEF DESCRIPTION: The goal of this pathway is to provide an evidence-based approach to the diagnosis and management of preseptal cellulitis and orbital cellulitis in the pediatric population (up to age 18). This pathway is intended for pediatric hospitalists, urgent care and emergency room physicians, NPs and PAs, pediatric ophthalmologists, oculoplastic surgeons, and ENT physicians who care for these children in the emergency room, urgent care, inpatient, and pediatric intensive care unit settings. Periorbital cellulitis is an infectious process commonly caused by bacteria from the sinuses internally or from trauma externally. It is characterized by erythema/edema of the periorbital region. Signs and symptoms include pain, decreased vision, decreased extraocular movements, and optic neuropathy.

IMPLEMENTATION DATE: August 29, 2023

LAST REVISED: June 28, 2023

Clinical Pathways Clinical Approach

TREATMENT AND MANAGEMENT:

Chandler classification:

- **stage I:** preseptal orbital cellulitis with inflammation and edema anterior to the orbital septum.
- **stage II:** orbital cellulitis with extension of the inflammation and edema beyond the orbital septum.
- **stage III:** subperiosteal abscess beneath the periosteum of lamina papyracea.
- **stage IV:** orbital abscess and purulent collection within orbit.
- **stage V:** cavernous sinus thrombosis after posterior extension of the infection through the superior ophthalmic veins.

Chandler I: Consider inpatient admission if:

- Significant vital sign abnormalities, systemic symptoms (e.g., SIRS)
- Rapidly expanding cellulitis
- Concern for eyelid abscess
- Failed appropriate outpatient medications (Keflex; Clinda if allergy)
- Cannot tolerate oral medication

Chandler II-IV: inpatient admission; follow treatment algorithm

Pathway Information

OWNER(S): Dr. Lauren Fletcher Morehouse, Dr. James Van Beynen, Dr. Rosemary Olivero

CONTRIBUTOR(S): Dr. Chad Afman, Dr. Allison Long

EXPERT IMPROVEMENT TEAM (EIT): N/A

CLINICAL PRACTICE COUNCIL (CPC): Children's

CPC APPROVAL DATE: August 29, 2023

OTHER TEAM(S) IMPACTED: Nursing

References

Chen L, Silverman N, Wu A, Shinder R. Intravenous steroids with antibiotics on admission for children with Orbital cellulitis. *Ophthalmic Plastic & Reconstructive Surgery*. 2018;34(3):205-208. doi:10.1097/iop.0000000000000910

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