Antibiotic Prophylaxis in Cranio-Facial Trauma

**Rationale:** The benefit of antibiotic prophylaxis following cranio-facial trauma is to reduce the risks of meningitis and invasive device related colonization and infections. Clinical settings discussed include 1) Intracranial pressure monitors/ventriculostomies, 2) Open facial fractures, 3) Closed facial fractures 4) Nasal Packing 5) CSF leak 6) Pneumocephalus 7) Open Globe Injuries

**Practice Management Guidelines:**

1. **ICP monitors and ventriculostomies:** Ancef 2 gm IV 30 minutes prior to insertion. No further dosing is needed.

2. **Open-facial fractures:** Ampicillin/sulbactam 3 grams IV preoperatively 30 minutes prior to incision (to go with patient to the OR). At attending discretion, post-op q6h for 3 doses postoperatively. **If patient does not go immediately to the operating room: 24 h of antibiotics then hold until day of operation and proceed with the above plan.**

3. **Closed facial fractures:** No prophylactic AB use

4. **Nasal packing:** No prophylactic AB use. There will be no extended course of antibiotics for these patients.

5. **CSF leak:** No prophylactic AB use

6. **Pneumocephalus:** No prophylactic AB use

7. **Open Globe Injuries:** Vancomycin (dosing per Estar) and Cefepime** (CrCl >60: 2gm q8h, CrCl 30-60: 2gm q12h, CrCl 11-29: 2gm q24h, CrCl <10 or HD: 1gm q24h, CRRT: 1gm q8h) for 48 hours post admission only.

   **Ceftazidime can be used depending on ID restrictions and drug shortages**

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References

1. Zosa, BM, Elliott CW et al. Facing the facts on prophylactic antibiotics for facial fractures: 1 day or less. J Trauma Acute Care Surg. 2018 Sep; 85(3) 444- 450.


