PAEDIATRIC ACUTE CARE GUIDELINE	
Nasal Trauma	
Scope (Staff):	All Emergency Department Clinicians
Scope (Area):	Emergency Department

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Nasal Trauma

Background

- Nasal fracture may not be an isolated injury: exclusion of other injuries is vital
- Acute complication such as septal haematoma and CSF rhinorrhoea requires early detection and management to prevent complications
- Proper assessment of a nasal fracture with surgical corrective intent is best made in the ENT Clinic after the soft tissue swelling has settled 7-10 day post injury

General

- Nasal fracture results from either lateral or frontal forces to the nose
- Common causes of nasal fractures in the paediatric population are contact games and sports followed by falls
- 20% of nasal fractures are associated with other facial injuries, hence a search for significant other injuries is important as part of the initial assessment
- Proper history taking from patient, witness and parents is vital to estimate severity and extent of injury
- A period of loss of consciousness is an indication of closed head injury

Examination

Common Presenting Signs and Symptoms

- Swollen nose
- Periorbital ecchymosis
- Epistaxis
- Blocked nose

- Pain

Management

- All patients with a nasal fracture are assumed to have other head injuries until proven otherwise. Hence all of these patients require complete neurological examination including cranial nerve examination and palpation of the facial bones for other facial fractures
- Management of intracranial or orbital injuries takes precedence over nasal fractures
- If nasal fracture is an isolated injury, acute complications need to be excluded:
    - Septal haematoma
    - CSF rhinorrhoea

Acute Complications
Septal Haematoma • Presents as a unilateral or bilateral fluctuant septal swelling resulting in occlusion of the nasal passage • Septal deviation (bent cartilage septum) may present with similar appearance except that it is solid rather than fluctuant on palpation • Septal haematoma should be treated as a **surgical emergency** requiring incision and drainage within 24 hours • **Patients need referral to Paediatric ENT Team URGENTLY** • Untreated septal haematoma may lead to septal abscess resulting in cavernous sinus thrombosis and meningitis, or cartilage destruction with a “saddle nose” deformity
CSF Rhinorrhoea • Presentation of traumatic CSF leaks can be subtle and diligence is required when one is suspected • May presents with unilateral continuous nasal drip of clear water consistency • May be positional in nature, most commonly associated with standing or leaning forward • Consider need for head CT and referral to Paediatric Neurosurgical +/- ENT Team

Discharge criteria

- After proper examination and exclusion of the acute emergencies, the patient with a nasal fracture is advised to rest at home with the following instructions:
    - Avoid contact sports and pressure on the nose
    - Avoid aggressive blowing of the nose
    - Analgesia
    - Give parent or carer the Head Injury and Return To Sport Fact Sheet
    - Seek medical review if worsening pain, headache and fever (septal abscess)

Referrals and follow-up

- **Patients with suspected nasal fracture require review in ENT Out Patient Clinic in 7-10 days**
- Explain to the patient that this duration will allow time for swelling to settle, enabling the Paediatric ENT Team to properly assess the nose for deformity and nasal obstruction
- Any necessity of intervention will be discussed at the clinic review

Observations

- Baseline neurological observations required

References
PMH Emergency Department Guidelines – Nasal trauma: Last Updated 17/07/14 Prosser, JD, Vender, JR, Arturo S. *Traumatic Cerebrospinal Fluid Leaks.* Otolaryngol Clin N Am 44 (2011) 857–873. Retrieved 18/07/2014 from: http://www.hopkinsmedicine.org/otolaryngology/education/thursday_lecture_series/traumatic%20CSF%20leaks.pdf

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