The on-call maxillofacial surgeons can be contacted through the switchboard at the Southern General Hospital

Mandibular Injuries

Mechanism of injury
Assault, falls, RTA-Direct trauma to mandible

Associated Injuries
Local
C-spine
Chest/abdomen

Symptoms & signs
Pain, swelling, limitation of jaw movement, malocclusion, altered sensation of mental nerve

Investigations
Radiographs in 2 planes
E.g OPG & PA mandible
Patient needs to sit still for a few mins for an OPG. Drink/uncooperative patients will be unable to get these x-rays. Overnight may get oblique laterals

Classification of injuries
Site
Condyle 32%
Angle 25%
Body 25%
Symphysis/canine 9%
Coronoid/alveolus/>2 sites 9%
37% bilateral
Remember mandible is a ring structure- usually breaks in 2 places

Typical patterns
Angle & contralateral condyle
Angle & contralateral body/anterior mandible
Body/anterior mandible & contralateral condyle
Anterior mandible & bilateral condyles

Management
41% treated conservatively
however all cases should be referred to the on-call maxillofacial surgeon urgently as specialist assessment is indicated unless undisplaced crack # with normal occlusion (usually condylar #)
analgesics
antibiotics Penicillin & Metronidazole
Maxillofacial SHO will decide if patient to be transferred to another hospital for admission

Danger Areas
Bilateral anterior mandibular # in unconscious/semiconscious supine patient

Middle cranial fossa injury mandibular condyle displaced posteriorly
Central Mid-face Injuries

Mechanism of injury
Significant blunt trauma to mid-face assaults, RTA

Associated Injuries
Skull
Neck
Chest
Abdomen

Symptoms & Signs
Gross swelling, panda eyes, long face, deranged occlusion, altered sensation infraorbital nerves, mobile maxilla, palpable steps

Investigations
Radiographs: skull, c-spine, facial bones- occipito-mental views at 15 & 30 degrees OPG, CT

Classification
Often difficult clinically
Le Fort I-III
Unilateral, bilateral
A&E diagnosis is of mid face #

Management
Clear & secure airway
Stop haemorrhage
Exclude other injuries
Urgent referral
Analgesics
Antibiotics
Admit

Danger Areas
Airway
Haemorrhage
Associated injuries
Head injury
Globe injury
Lateral Mid Facial Injuries (Malar/Zygomatic complex #s)

Mechanism of Injury
Blunt trauma to side of face or infra-orbital region
Assault, sports injuries, RTA & falls

Associated Injuries
Eye
Skull
Neck

Symptoms & Signs
Swelling, bruising, facial flatness, subconjunctival haemorrhage (no posterior limit)
altered infraorbital nerve sensation, palpable steps, limitation of jaw movement,
unilateral epistaxis. Restriction of eye movement, dystopia, enophthalmos & diplopia.

Investigations
Visual acuity
Fundoscopy
Radiographs-facial views

Classification
Type 1 undisplaced (any site)
Type 2 zygomatic arch only
Type 3 tripod FZ intact
Type 4 tripod FZ separated
Type 5 pure blow out
Type 6 orbital rim only
Type 7 comminuted

Management
Exclude eye injuries (& other injures)
Antibiotics (amoxycillin)
Contact the on-call maxillofacial SHO at the Southern General Hospital to arrange an
out-patient appointment.
Give patients copy of notes/x-rays & appointment time for the Southern General.
Advise no nose blowing & return if eye symptoms worsen.

Danger Areas
Eye injuries
Associated injuries
Orbital Blow Out Injuries

**Mechanism**
Direct blow to orbit e.g. squash ball, punch

**Symptoms & Signs**
Bruising, subconjunctival haemorrhage (No posterior limit) altered infraorbital nerve sensation, unilateral epistaxis. Restriction of eye movements, dystopia, enophthalmos & diplopia. Visual field changes

**Investigations**
Radiographs; occipito mental views CT axial & coronal

**Classification**
Floor
Medial wall
Lateral wall
Roof

**Management**
Exclude eye injuries (& other injuries)
Antibiotics (amoxycillin)
Next out-patient clinic follow up
Advise no nose blowing & return if eye symptoms worsen
If minimal swelling early referral may expedite treatment

**Danger Areas**
Eye injuries
Associated injuries
**Naso-orbital-ethmoidal Complex Injuries**
For isolated nasal injuries/# see ENT

**Mechanism of injury**
Significant blunt trauma to bridge of nose RTA, assault

**Associated Injuries**
Skull
Neck
Other facial bones
Chest
Abdomen

**Symptoms & signs**
Bruising, swelling, bilateral panda eyes, depressed nasal bridge, telecanthus, bilateral eye signs, epistaxis, CSF rhinorrhea

**Investigations**
Radiographs; skull, c-spine, OMS, lat facial bones, CT axial & coronal

**Classification**
#s involve one or both orbits, nasal bones & frontal sinus and or anterior cranial fossa

**Management**
Control haemorrhage
Exclude other injuries
Analgesics
Antibiotics
Admit
Urgent referral

**Danger Areas**
Haemorrhage
CSF
Globe injuries

Last reviewed January 2003