Initial Assessment, Management and Referral of Common Maxillofacial Presentations: Fractures of the Mandible

TARGET AUDIENCE	Primary and secondary care clinicians
PATIENT GROUP	All adult and paediatric patients

Clinical Guidelines Summary

Overview

1) The clinical spectrum of facial trauma ranges from minimal soft tissue injuries to life threatening panfacial trauma.
2) This guide aims to outline basic assessment, early management and referral pathways for the more common patterns of facial trauma namely:
    - Fractures of the mandible
    - Fractures of the zygomatic complex/arch
    - Orbital fractures
3) At presentation patients should be managed according to Advanced Trauma Life Support (ATLS) protocol so that life-threatening injuries/complications are prioritised.

Fractures of the Mandible

Clinical Features

1) Common findings on assessment include:
    - Pain and swelling over fracture site
    - Limitation of jaw movement
    - Malocclusion: An inability to bring teeth into normal occlusion or an obvious step in occlusion (this can easily be mistaken for an avulsed tooth socket)
    - Palpable bony step
    - Sublingual haematoma (almost pathognomonic of mandible fracture)
    - Inferior alveolar nerve injury (lip/chin numbness)
2) Always look for more than one fracture as bilateral fractures frequently occur
3) Ensure missing teeth/teeth fragments are accounted for

Imaging

1) Minimum: Orthopantomogram (OPT) and Posteroanterior mandible view (PA Mandible)
2) CT mandible may be appropriate if patient requires CT head or if intubated
3) Consider chest x-ray if teeth/teeth fragments are not accounted for

Management for Both Adult and Paediatric Patients

1) Fractures of the tooth bearing segment of the mandible are considered open fractures that require acute referral, intravenous (IV) antibiotics and most likely admission for open reduction and internal fixation.
2) Unilateral condylar fractures/coronoid process fractures do not routinely require admission. These are closed fractures, do not require antibiotics and can be reviewed on an Oral and Maxillofacial Surgery (OMFS) outpatient clinic in 5-7 days.
3) Bilateral condylar fractures may require admission and should be discussed acutely with OMFS on-call. These are closed fractures and do not require antibiotics.
4) Analgesia is important

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How to Refer Mandibular Fractures to OMFS

1) If the patient requires admission under OMFS:
   (i) In-hours (8am-5pm):
      - Monday-Thursday- on-call service based in Forth Valley Royal Hospital (Tel: 01324 566000, Bleep: #1143)
      - Friday- on-call service based in Queen Elizabeth University Hospital Glasgow (Tel: 0141 201 100, Bleep #17666)

   (ii) Out-of-hours:
      - On-Call SHO can be contacted through Monklands switchboard with an on-site ANP triaging calls from 10pm-7.30am

2) If the patient does not require admission under OMFS:
   (i) Emergency departments can send patient details to OMFS administration team who will give details to day team/arrange trauma clinic appointment

   (ii) Other areas of hospital can give patient details to the on-call team as above

References/Evidence

1. Kerwala C, Newlands C, editors. Oral and Maxillofacial Surgery (Oxford Specialist Handbooks in Surgery). 2nd ed. Oxford: OUP Oxford; 2014.
2. Payne KFB, Goodson MCG, Tahim AS, Ahmed N, Fan K. On-Call in Oral and Maxillofacial Surgery. 2nd ed. Enfield: Libri Publishing; 2015.
3. Sadler A, Cheng L. Dentist on the Ward. 6th ed. Sorejaw Publishing; 2015.

Appendices

1. Governance information for Guidance document

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CHANGE RECORD			
Date	**Lead Author**	**Change**	**Version No.**
		e.g. Review, revise and update of policy in line with contemporary professional structures and practice	1
			2
			3
		.	4
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2.You can include additional appendices with complimentary information that doesn't fit into the main text of your guideline, but is crucial and supports its understanding.

e.g. supporting documents for implementation of guideline, patient information, specific monitoring requirements for secondary and primary care clinicians, dosing regimen/considerations according to weight and/or creatinine clearance