University Hospitals of Liverpool Group

Dental Guideline

Applicable to (please mark with an X)							
Group-wide		**LUHFT-wide**				**Liverpool Women's**	**x**
Aintree Hospital		**Broadgreen Hospital**		**LCL**		**Royal Liverpool Hospital**	

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Associated Documents	
Evidence Base and References e.g. Regional or National Guidelines such as NICE or Royal College.	• Adeysundara et al.; Dental knowledge for anaesthetists; BJA Education: *2016* • S Dejemal; Dental trauma During Anaesthesia; RCOA: 2012
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What is new in this version?

Latest Version	Page	Changes Made	Date
3.0			**16/12/25**

1 Introduction

Dental damage is a leading cause of medicolegal claims and complaints against anaesthetists. Direct laryngoscopy is implicated in dental trauma, which occurs in about 1 in every 4500 general anaesthetics. Risk stratification, thorough assessment, sensible consent and appropriate management of dental trauma are vital.

2 Guidance

2.1. Identifying the risk:

2.1.1. Pre op assessment & documentation

- *Poor dental hygiene, loose tooth, unsupported tooth*
- *Previous dental work,*
- *Difficult laryngoscopy*
- *Poor mouth opening.*
- *Prominent incisor*
- *Limited subluxation of lower jaw*
- *Limited neck extension*

Explaining the risk of dental damage and documenting the discussion in the pre op assessment is extremely important.

Should a patient be found to be high risk they should be referred for dental assessment pre-procedure.

Patients with non-native teeth, should be informed that they are never as strong as originals that have been well cared for, and pose an increased risk for injury.

2.2. Strategies to prevent damage:

- Think of available options of anaesthetising the patient without interfering with the airway e.g. regional anaesthesia
- Consider leaving the dentures in place in case of presence of any solitary tooth in vulnerable position for damage
- If there is a need for intubation - remember the tooth to blade contact can be reduced by using alternate blades. Be prepared with various types of laryngoscopes, (straight blade, videolaryngoscope, McCoy), bougie and Magil's forceps
- Choose your options based on the situation and discuss it with consultant anaesthetist
    - Remember straight blades can be useful to reduce the blade to upper incisor contact
    - Video laryngoscope
    - McCoy in case of floppy epiglottis
    - Short handled or a polio blade in case of high BMI or large breasted patient
    - Appropriate cricoid pressure and use of bougie

- Attempt airway management when patient is fully anaesthetised and properly paralysed, avoid tooth to blade contact
- Be gentle always but ready to pick the fallen tooth with the Magil's forceps
- during extubation shivering and involuntary biting on the tube increase the risk of damage
    - avoid vigorous oral suctioning with yanker, use suction catheter if necessary.
    - To prevent biting on the tube, consider the use of a Guedel airway or soft bite block or a rolled gauge between the molar teeth depending on the clinical situation.
    - Caution: the ability of the front tooth to withstand the pressure is different and they are prone to fracture
    - If you are using rolled gauge part of it should be visible remember to remove it. If there is existing loose tooth avoid it as accidental trauma is likely.
    - Avoid pulling the tube out forcefully

2.3. Managing dental trauma:

- The dental hospital do not provide a service for dental injury secondary to airway instrumentation (intubation/ extubation).
- The only caveat to the above is:
    1) In a patient who will have a prolonged inpatient stay with exposed pulp post injury and requires dental first-aid (ie pain and not possible to access their own dentist).
    2) Where a tooth needs to be reimplanted. This would require a splint to be fitted to secure the tooth in position. This would be classed as a dental emergency and is something maxfax oncall should support with as it is time-critical to achieve a good outcome.
- In other scenarios, the patient should be advised to seek urgent dental care from their own dentist.
- If the patient is unhappy with their own dentist's care, they should find alternative dental care.
- In most cases of dental injury, there will be mitigating causes. The patient should **not** be told that their costs will be covered by the hospital. This will be done on a case-by-case basis, after full investigation and the patient must provide receipts for the dental care they have required as a consequence.

2.3.1. Dental Trauma

- Retrieval of broken avulsed teeth or prostheses should be attempted immediately. Apply pressure if there is bleeding
- If this is not possible, a chest radiograph should be performed to identify any aspirated or swallowed fragments.
- Aspiration into the tracheobronchial tree mandates urgent ENT advice.
- Fragments should be collected and returned to patient following the procedure, when a full explanation of the incident is given.
- Complete avulsion of a tooth is one of the most serious dental injuries encountered and the outcome for tooth survival is depends upon timely replacement of the tooth. In the absence of immunocompromise and serious periodontal disease, the avulsed tooth should be replaced and held in place in the gum for several minutes. Max fax oncall should be contacted as it it time critical to achieve a good outcome.

2.3.2. Perioral Trauma

- The oncall Max Fax SHO can be contacted via switch for advice.
- For bleeding/ bitten tongue, the oncall Max Fax should be contacted as the injury may require suturing.

2.4. Patient Advice

- Small lacerations – avoidance of irritation with hot or spicy food
- Bleeding – appropriate pressure with gauze
- Lost tooth – The area will heal naturally. The clot should not be disturbed; uncontrolled bleeding may be tackled with biting on some gauze
- Dislodged, replanted or moved tooth – A dentist should be seen as soon as possible. In the meantime the area should be kept clean and chlorhexidine mouth wash used two to three times per day.

Appendix One: Document History and Version Control

Version	Date	Comments	Author/Job Title
1.0	22/09/2018	New Guideline	Author: R. Berwick, Dr. Tamilselvi Ramanathan Reviewed: E. Djabatey, Dr. Tamilselvi Ramanathan
1.1	24/06/2019	Reviewed after a year due to being new document no changed required review date extended to 3 yearly	Dr. Tamilselvi Ramanathan
2.0	28/07/2022	No changes required review date to change to a further 3 years	Dr. Tamilselvi Ramanathan
3.0	16/12/2025		Dr Grainne Garvey, Consultant Anaesthetist