

**SOP: Intra-operative Bite block insertion and management****Standard Statement:**

Transcranial Motor evoked potentials (TcMEPs) are a neuromonitoring modality used intraoperatively to assess function of the cortico-spinal tract during cranial, spinal and vascular surgeries associated with risk of damage to these pathways. Bite injuries to oral structures including tongue and lip lacerations as result of jaw clenching with TcMEPs occur in up to 0.63% of patients<sup>1</sup>. The appropriate use of bite blocks to reduce the risk of these complications is indicated in any patient undergoing intra-operative neuromonitoring with TcMEPs.

**1. Aim**

- 1.1 To reduce the risk and incidence of bite injuries associated with the use of intra-operative neuromonitoring.
- 1.2 To provide theatre staff with guidance for standardised insertion and monitoring of intra-operative bite blocks.

**2. Scope**

- 2.1 This SOP should be used for all patients undergoing neurosurgical procedures where intra-operative neuromonitoring using TcMEPs is being utilised.

**3. Patient group**

- 3.1 All patients undergoing spinal or cranial surgery where intra-operative neuromonitoring using TcMEPs may be used.

**4. Process**

- 4.1 Requirement for bite block insertion should be highlighted at team brief and confirmation of insertion at time out of the WHO checklist.
- 4.2 Soft bite blocks should be used consisting of 2-3 rolled anaesthetic gauze wrapped in tape.
- 4.3 Two bite blocks should be used – one on each side of the mouth inserted between upper and lower molars.
- 4.4 Bite blocks should be wide enough to prevent contact between the teeth and the tongue but should not cause excessive mouth opening.
- 4.5 Hard plastic bite blocks are not recommended as are associated with dental injury and soft tissue pressure sores.

4.6 Bite blocks should be removed at the end of surgery prior to extubation.

## 5. Documentation

5.1 The risk of bite injuries should be discussed with all patients having surgery requiring TcMEP monitoring, and this discussion should be documented as part of the consent on either the anaesthetic chart or surgical consent form.

5.2 Insertion of bite block and removal at the end of the procedure should be documented on the anaesthetic chart.

## 6. References

6.1 Tamkus A, Rice K (2012) The incidence of bite injuries associated with transcranial motor-evoked potential monitoring. *Anesth Analg* 115: 663-667

## Measure

- Observe
- Questioning Staff
- Training via bi-monthly Audit Day