

TSVS Brachycephalic Surgical Protocol

Preoperative:

- Place IV catheter and e-collar
- Administer weight appropriate dose of injectable Cerenia
- **DO NOT GIVE NSAIDS** 72 hours prior to surgery date. The patient will go home on a tapering dose of steroids.
- Premed (per clinic protocol) after you receive our call to do so, based on our travel time. Please read our additional recommendations below:
 - Opioids are the most frequently used pre-anesthetic analgesic agents. Opioids are not contraindicated simply because the patient is brachycephalic. Although it is thought that opioids cause respiratory depression, this is more of a dose-dependent issue. Opioids commonly used for pre-medication include: methadone, morphine, and buprenorphine.
 - The premedication also frequently involves a sedative component in the form of an alpha-2 agonist such as medetomidine, a tranquilizer such as acepromazine, or a benzodiazepine such as diazepam or midazolam. Unlike phenothiazines and benzodiazepines, medetomidine will also provide analgesia. When combined with other medications in the premedication, dexmedetomidine may even provide sufficient analgesia and muscle relaxation for minor surgical procedures to be performed.
 - Anticholinergic agents, which block muscarinic receptors, are typically included in anesthetic premedication protocols to minimize parasympathetic effects of anesthesia such as bradycardia, bronchoconstriction, and excessive saliva formation. Brachycephalic breeds often have higher vagal tone than other breeds and can become bradycardic, so anticholinergic agents such as glycopyrrolate may be administered to elevate heart rate.
 - Routine use is not recommended, but anti-cholinergics can be given to decrease secretions and reduce the likelihood of aspiration pneumonia on a case-by-case basis. They are contraindicated in patients with certain cardiac diseases (e.g., mitral insufficiency) in which an elevated heart rate is harmful and should be used with caution in patients with myocardial oxygen balance issues.
- Administer dexamethasone @ 0.5-1 mg/kg, to decrease post operative swelling and inflammation.
- *Preoxygenate brachycephalic patients for 10 to 15 minutes following administration of anesthetic premedication agents. This can increase fraction of inspired oxygen (FiO₂), which may improve partial pressure of oxygen (PaO₂).*

Induction:

When TSVS surgeon arrives, induce with patient appropriate dose of Propofol. Please have this calculated and drawn up prior to our arrival. Our surgeon will intubate, checking the patient's saccules and tonsils.

Please do not induce the pet prior to our arrival to allow TSVS surgeon to evaluate for airway for laryngeal collapse (grade), soft palate length in regard to epiglottis, etc.

When the TSVS team arrives, administer induction agents intravenously rather than by facemask, which is not recommended for brachycephalic patients because it can increase stress. The edge of the facemask can also damage the patient's cornea, and use of rapidly metabolized induction agents is preferred in these patients. Intubation will require a small-diameter endotracheal tube and use of a laryngoscope because excessive tissue in the pharynx may reduce the visibility of the laryngeal opening.

Have laryngoscope and intubation tube, cuff syringe available.

- Administer Cefazolin (22mg/kg IV slowly), to be repeated after 90 minutes as needed
- Start IV fluids at (5ml/kg/hr IV)
- **Keep patient warm/covered at all times.** A Bair hugger is preferred but warmed fluid bags, warming discs and/or warming surgical table/pads are acceptable, along with patient covered with blankets to maintain body heat.

Intra-op:

- Monitor the patient closely (Heart rate, indirect blood pressure, respiration rate, and temperature)
- Repeat Cefazolin every 90 minutes.

Post-operative:

- Ask the surgeon about giving another dose of Cefazolin upon completion of the procedure.
- Prednisone- tapering dose to be administered over the next 5-7 days.
- Cerenia- send home 4 days of oral Cerenia following surgery.
- Antibiotics: Cefpodoxime 10mg/kg SID PO or Cephalexin 30mg/kg BID PO for 5 days.
- ET tube should be left in place as long as possible, on oxygen therapy, until patient is awake/alert (i.e., chewing on the tube)

Clients will be instructed the following in the discharge instructions. Please go over these items with owners at discharge.

- No food for 24 hours after surgery.
- No water for 4-6 hours after surgery.
- Soft food diet should be offered for 2 weeks. No hard, crunchy kibble, to prevent scratching their airway.
- Maintain pet in a cool environment for 2 weeks (to prevent overheating) before returning to normal activity.
- Do not use a collar/leash. A chest type harness should be used for the remainder of the dog's life, to prevent constriction.