

SAN FRANCISCO EMERGENCY MEDICAL SERVICES AGENCY

Effective: 01/01/11
Supersedes: 09/01/06

Protocol: P-004.3

NASOTRACHEAL INTUBATION

SUBJECTIVE FINDINGS

- Respiratory disease history
- Previous airway management interventions
- Head (especially maxillo-facial) trauma
- Nasal septal or sinus surgery
- Hypertension
- Bleeding disorder

OBJECTIVE FINDINGS

- Hypoventilation (apnea is a contraindication for Nasotracheal intubation).
- Inability to otherwise establish an airway or maintain ventilation and two of the following conditions are met:
 - Hypoxia (considered being the persistence of acute oxygen saturation of < 92%);
 - Altered mental status (specifically, GCS of 10 or less and declining) ;
 - Respiratory Rate of <10 or >36.
- Patient weight must be over 30 kg (this effectively eliminates most children under **15** years of age).
- Patients with significant maxillo-facial trauma should receive NTI only if OTI is impossible and BLS maneuvers fail to secure the airway and **requires BHP approval**.

BLS Treatment	ALS Treatment
<ul style="list-style-type: none">• RMC.• Pulse oximetry.• Pre-oxygenate with 100% oxygen.• Assist with preparation of intubation equipment if qualified.	<ul style="list-style-type: none">• Explain procedure to patient if conscious.• Pretreat both nares with phenylephrine HCL 0.25%.• Administer a spray of cetacaine to the posterior pharynx.• Lubricate a NP airway with 2% lidocaine jelly and insert into the larger nare.• Choose correct size ET tube, remove stylet, attach BAAM whistle. Lubricate tube with 2% lidocaine jelly.• Position patient.• Remove NP airway.• Intubate.• Confirm tube placement with auscultation, observing for chest rise and fall, ETCO2 detection device (electronic capnography or CO2 detector).• Secure tube and prepare for transport.• Confirm tube placement each time patient is moved or tube is manipulated in any way.

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BASE HOSPITAL CONTACT CRITERIA

1. NT Intubation in patients with significant maxillo-facial trauma requires BHP approval prior to attempt.
2. **Midazolam** 2.5 mg slow IV push to a maximum dose of 5 mg (may be repeated every five minutes).
3. **Morphine sulfate** 2-4 mg slow IVP titrated to effect for analgesia; max dose 20 mg.

DOCUMENTATION

- Respiratory evaluation.
- Oxygen saturation post intubation.
- Use of nasal vasoconstrictor drops.

PRECAUTIONS AND COMMENTS

- Oral endotracheal intubation is the preferred method for endotracheal intubation. When in doubt about optimal airway management technique, have an assistant contact the Base Hospital Physician for consultation.
- Intubation attempts should not be protracted or persisted with if unsuccessful. The provider team should make no more than 2 attempts before resorting to a rescue airway (Supraglottic Airway P#004.2 for adults or children, needle cricothyroidostomy P#004.4 for adults or children). Each NT intubation attempt should be halted if oxygen saturation decreases below 93%.
- If suctioning is necessary, maintain oxygenation and ventilation between suction attempts—each suctioning should last no more than 10 seconds.
- Failure to achieve airway patency requires immediate transport to the closest available Receiving Hospital.
- I.V. or I.O. administration of medication is preferred over administration via NT tube whenever possible.
- End-tidal CO₂ colorimetric devices are not reliable in cardiac arrest patients. Utilize a capnometer or esophageal detector device in these patients.
- All nasotracheal intubations and nasotracheal intubation attempts must have a Quality Improvement review per the EMS provider agency's QI review standards.