## Questions to Ask / Necessary Information

- Does patient position affect breathing?
- Does patient routinely use oxygen?
- Does the patient have dyspnea with routine activity? Or chronic coughing?

Obtain medical consultation if the condition is poorly controlled (as manifested by dyspnea, coughing, or frequent upper respiratory infections) or undiagnosed, or if the diagnosis is uncertain. Review history and clinical findings for concurrent heart disease.

## Risk for Medical Emergency

Respiratory depression

## Pertinent Laboratory Information

Severity of COPD is determined by spirometry.
# Management For Dental Treatment

## Preoperative Management
1. Semi supine or upright chair position may be better for treatment in these patients to prevent orthopnea.
2. Avoid rubber dam in severe COPD
3. Consider low-dose oral diazepam or another benzodiazepine, although these agents may cause oral dryness.
4. Monitor for signs and symptoms of unstable COPD (dyspnea at rest, productive cough, URTI, O2 saturation level < 91%)
5. Avoid outpatient general anestheisa and nitrous oxide—Nitrous oxide-oxygen inhalation sedation should be used with caution in patients with mild to moderate chronic bronchitis. It should not be used in patients with severe COPD and emphysema.

## Management During Treatment
1. Local anesthesia can be used without change in technique. Avoid bilateral mandibular block.
2. Monitor oxygen saturation with pulse oximetry during sedation and invasive procedures.
3. Use low-flow (2 to 3 L/minute) supplemental O2 is helpful especially when oxygen saturation drops below 91%.
4. At each follow-up appointment, encourage patient to quit smoking, and examine oral cavity for lesions that may be related to smoking. Avoid treatment if upper respiratory infection is present.

## Postoperative Management
1. Avoid erythromycin, macrolide antibiotics, and Ciprofloxacin in patients taking theophylline. In patient who has received courses of antibiotics for upper respiratory infections, oral and lung flora may include antibiotic-resistant bacteria.
2. Avoid use of barbiturates and narcotics, which can depress respiration.
3. Avoid use of antihistamines and anticholinergic drugs because they can further dry mucosal secretions.
4. Supplemental steroids are unlikely to be needed to perform routine dental care; the usual morning corticosteroid dose should be taken on the day of surgical procedures.

## Oral Manifestations
Patients with COPD who are chronic smokers have an increased likelihood of developing halitosis, extrinsic tooth stains, nicotine stomatitis, periodontal disease, premalignant mucosal lesions, and oral cancer. Anti-cholinergics are associated with dry mouth. In rare instances, theophylline has been associated with the development of Stevens-Johnson syndrome.

## References