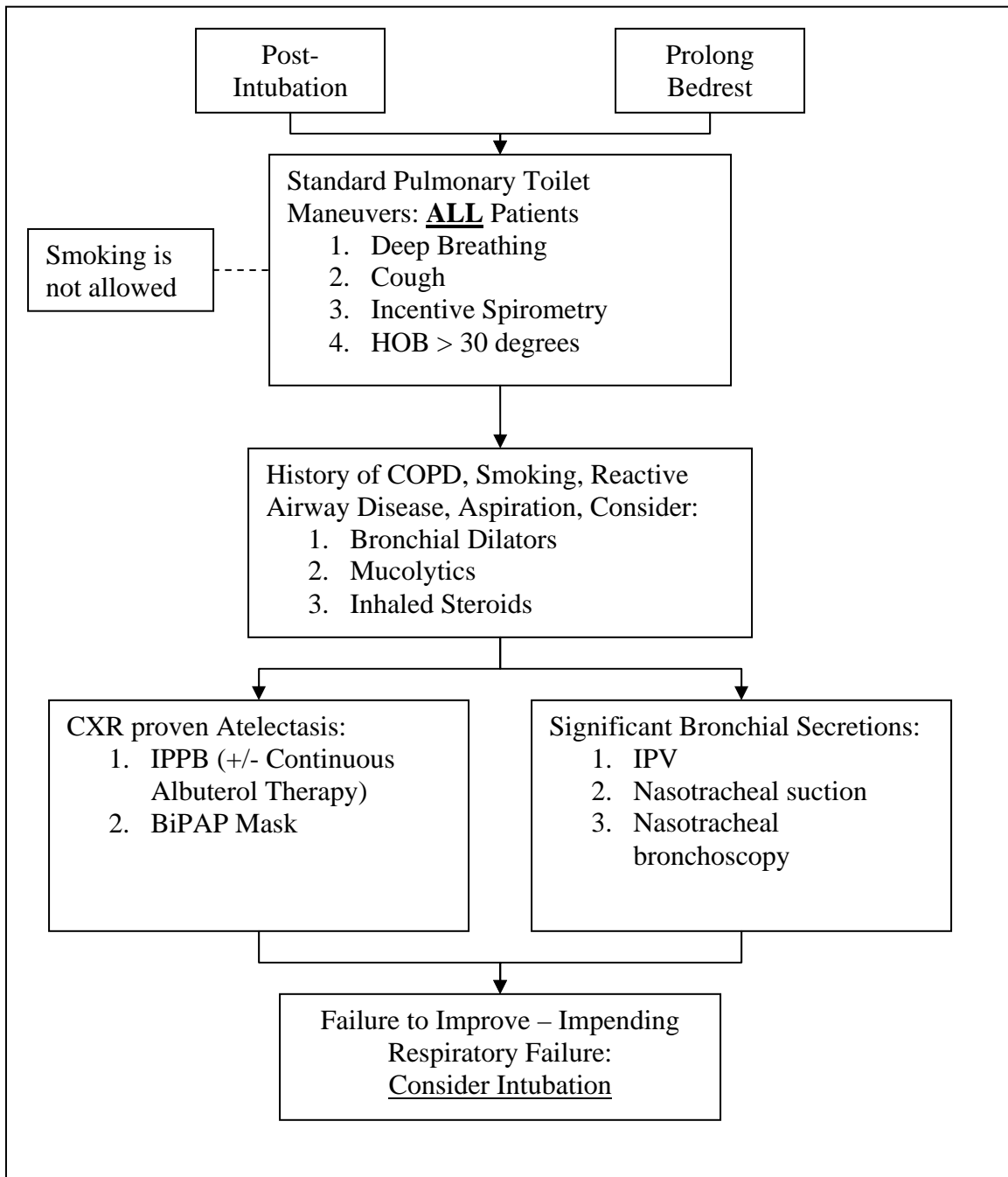


Bronchial Hygiene Protocol
Trauma / Emergency General Surgery / Surgical Critical Care
Division of Trauma, Emergency General Surgery, and Surgical Critical Care
Revised 2007

Patient Flow Diagram:



Bronchial Hygiene Protocol
Trauma / Emergency General Surgery / Surgical Critical Care
Division of Trauma, Emergency General Surgery, and Surgical Critical Care
Revised 2007

- I. Purpose: In the non-intubated patient - to promote adequate pulmonary toilet by
- decrease post-operative or post intubation atelectasis
 - promote airway recruitment maneuvers
 - manage pulmonary secretions due to smoking history, aspiration, pneumonia
 - prevent pneumonia, and reduce or anticipate respiratory failure

II. Standard Pulmonary Toilet Maneuvers: **ALL** Patients

1. Deep Breathing
2. Cough
3. Incentive Spirometry (x10 q1 hour)
4. HOB > 30 degrees
5. Early mobilization within 24 hours of admission. The trauma attending is responsible for determining the mobilization status. (Upon spinal clearance, and physician order, patients will be out of bed to chair. Ambulation should be initiated as soon as the patient's condition allows.

III. Patients with a history of COPD, Smoking, Reactive Airway Disease, Post – Trauma Aspiration, Consider:

1. Bronchial Dilators (Albuterol MDI, Ipratropium, Combine MDI, Continuous Albuterol Therapy)
2. Mucolytics (Guaifenesin, Mucomyst)
3. Inhaled Steroids: (Flovent, Pulmicort, Advair)

IV. CXR Proven Atelectasis or Lobar Collapse

1. IPPB (+/- Continuous Albuterol Therapy)
2. BiPAP Mask (Start at 7.5 cmH₂O)

V. Significant Bronchial Secretions:

1. IPV
2. Nasotracheal suction (prn RN)
3. Nasotracheal bronchoscopy (Go to Bronchoscopy protocol)

VI. Failure to Improve – Impending Respiratory Failure: Consider Intubation

References

1. Handelsman H. Intermittent positive pressure breathing (IPPB) therapy. Health Technol Assess Rep. 1991;(1):1-9
2. Tsuruta R, Kasaoka S, Okabayashi K, Maekawa T. Efficacy and safety of intrapulmonary percussive ventilation superimposed on conventional ventilation in obese patients with compression atelectasis. J Crit Care. 2006 Dec;21(4):328-32.
3. Deakins K, Chatburn RL. A comparison of intrapulmonary percussive ventilation and conventional chest physiotherapy for the treatment of atelectasis in the pediatric patient. Respir Care. 2002 Oct;47(10):1162-7.
4. Schreiter D, Reske A, Stichert B, Seiwerts M, Bohm SH, Kloeppe R, Josten C. Alveolar recruitment in combination with sufficient positive end-expiratory pressure increases

Bronchial Hygiene Protocol

Trauma / Emergency General Surgery / Surgical Critical Care

Division of Trauma, Emergency General Surgery, and Surgical Critical Care

Revised 2007

oxygenation and lung aeration in patients with severe chest trauma.

Crit Care Med. 2004 Apr;32(4):968-75.