Checklist for the Extubation of ICU Patients *

- **Confirm Extubation Readiness**
  - Passed SBT
  - SAT Done

- **Evaluate Risk Factors**
  - Any of the following risk factors:
    - History of difficult airway
    - Restricted airway access
    - C-spine surgery >3 levels with operative time >5h or blood loss >300 mL
    - Posterior fossa pathology
    - BMI ≥40 kg/m²
  - ≥ 2 of the following risk factors:
    - Lack of cuff leak
    - Lack of spontaneous cough
    - Tracheal suctioning frequency >q2h
    - Frequent oral suctioning
    - Failed >3 previous SBTs
    - Age >60 years
    - Male gender
    - Coma, i.e., GCS <10
    - Chronic lung disease
    - Positive cardiac history
    - End stage kidney disease

- **Pre-Extubation Assessment**
  - **HIGH RISK – Immediate Failure**
    - Difficult airway cart at bedside
    - Notify anesthesia airway pager
    - Allow continuous airway access
    - Hold feeds 2h pre- and 6h post-extubation
    - Insulin treated patients: initiate dextrose
    - Recommend methylprednisolone 20 mg IV q4 h, for 4 doses prior to extubation
  - **HIGH RISK – Delayed Failure**
    - Back up plan
      - Notify ICU team
      - ABG/VBG q12h
      - EtCO₂ monitoring
    - RT to assess 4h after extubation for need to obtain Bronchial Hygiene Protocol
  - **LOW RISK of Failure**
    - Routine extubation

- **Extubation**
  - Clear communication among teams, observation and monitoring
  - Resume feeds after successful extubation
  - If reintubation, prepare smaller size endotracheal tube

* Applies to all intubated patients except those placed on comfort care measures
**Checklist for the Extubation of ICU Patients**

### Definition of Extubation Failure:

- **High Risk - Immediate Failure**: Immediate post-extubation respiratory distress requiring reintubation within 2 hours of extubation.
- **High Risk - Delayed Failure**: Post-extubation respiratory distress requiring reintubation up to 24-48 hours after extubation.

### CONFIRM EXTUBATION READINESS

Each of the screening items are yes/no questions. If Yes to any of the screening items, the patient is automatically classified as High Risk-Delayed Failure, unless the timing of extubation failure is otherwise determined in Evaluate Risk Factors.

### EVALUATE RISK FACTORS

- **Restricted airway access** refers to any situation where the provider will be challenged ergonomically during airway management. Classically, this refers to those immobilized in a spine brace or halo device. Other examples may include, but are not limited to rooms where access to the head of the bed is restricted by equipment or personnel.

- **Cervical immobility** includes, but is not limited to patients who have had prior fusion surgeries of the cervical spine, is in a cervical immobilization collar, or has pre-existing disease involving the cervical spine. Examples may include inflammatory or degenerative arthritis or systemic diseases that may limit motion of the cervical spine such as diabetes or Parkinson’s disease.

- **A difficult airway** refers to a patient with a history of difficult ventilation or intubation OR anyone in whom a non-reassuring airway exam is present, including a recent history of upper airway obstruction or stridor.

- **Chronic lung disease** refers to any history of pulmonary disease documented in the patient’s medical record regardless of severity. This may include any scheduled use of inhaled bronchodilator or corticosteroid therapy or documented obstructive or restrictive lung disease.

- **Positive cardiac history** refers to a documented history of coronary artery disease treated by percutaneous or surgical intervention. Other examples are documented systolic or diastolic heart failure or valvular disease.

- **End stage kidney disease** refers to those with a calculated or measure GFR <30 ml/min or undergoing any dialytic therapy.

- **Frequent oral suctioning** is subjective and is interpreted as meaning the bedside clinician feels the quantity of oral secretions and their handling might contribute significantly to the burden of pulmonary toilet and aspiration.

### PRE-EXTUBATION ASSESSMENT

- **In insulin treated patients** use the standing order to start dextrose infusion if continuous feeding is stopped, or make a plan for alternative glycemic management at least 12 h prior to stopping enteral nutrition; Increase frequency of Point of Care blood glucose testing.

- **ABG/VBG** is ordered as clinically indicated and intended to detect early signs of hypoxemia/hypercapnia.

The **Bronchial Hygiene Protocol** includes the following procedures: Chest physiotherapy, Positive expiratory pressure therapy, Nasotracheal suctioning, Assisted coughing, Deep breathing, Incentive spirometry, Intermittent positive pressure breathing, Insufflator/Exsufflator.