Facilitator instructions for case scenarios: ETAT module 2, Airway and Breathing

1. Preparation
   a. Review learning objectives and case scenarios
   b. Review ETAT content that is illustrated in the scenarios
   c. Review process for using case scenarios
      i. Participants may work alone or as a group.
      ii. Participants may be asked to review each other’s performance at the end of the scenario.

2. Equipment (list all of the equipment that is required for this scenario)
   1. Manikin for airway positioning, airway adjuncts, and bag mask ventilation
   2. Assorted sizes of oral and nasal pharyngeal airways
   3. Oxygen delivery devices
      ▪ Nasal cannula
      ▪ Simple mask
      ▪ Nonrebreather (if possible)
   4. Suction catheters
   5. Infant and/or pediatric resuscitator (ambu) bag(s) with several sizes of masks

3. General principles
   a. Begin by reviewing the learning objectives for Module 2 (Airway, breathing):
      • Accurately determine whether or not a patient’s airway is patent and adequate.
      • Accurately assess the effectiveness of the patient’s breathing (oxygenation and ventilation).
      • Effectively perform maneuvers to relieve choking.
      • Effectively position the patient to open the airway (with and without possible cervical spine injury).
      • Give supplemental oxygen.
      • Effectively provide bag mask ventilation with and without airway adjuncts.
   b. All of these objectives will be covered in this station, using case scenarios. The specific objectives illustrated in each scenario will be described at the beginning of the case.
   c. Describe how the case scenarios will be presented
      i. The idea is to present the case as it would unfold in a real clinical situation. The facilitator will provide clinical information and may ask questions that will prompt the participant to give the appropriate response.
      ii. The participant should respond as s/he would in a real clinical situation. The participant may ask for additional clinical information.
      iii. The facilitator may ask the participant to demonstrate interventions.
      iv. Learning objectives will be reviewed again at the end of the case.
4. Record keeping: complete participant evaluation forms

Case Scenarios: ETAT Module 2, Airway and Breathing

Case #1 Upper airway obstruction, foreign body, >12 months

Learning Objectives for Case Scenario #1:
• Accurately determine whether or not a patient’s airway is patent and adequate
• Accurately determine which maneuvers to relieve choking are appropriate for a child greater than 12 months of age
• Effectively perform maneuvers to relieve choking

Facilitator says: A two year old boy who is sitting in the waiting room suddenly begins to cough and choke.

Facilitator says: What do you need to determine in order to correctly intervene?

Participant says: Is the airway patent?

Facilitator says: What are the signs of a completely obstructed airway?

Participant says: There are no audible sounds (cough, cry, wheeze) even though the patient is struggling to breath.

Facilitator says: The child is coughing audibly and choking.

Facilitator says: What should you do?
Participant says: Keep the child in a position of comfort with the caretaker. Bring the child into the treatment room.

Facilitator says: He continues to cough and choke. His color is pale. Suddenly you can no longer hear the coughing. He remains anxious, alert, and struggling for breath.

Facilitator says: What happened? What should you do?

Participant says: The upper airway has become completely obstructed. I will initiate abdominal thrusts.

Facilitator says: Ask the student to demonstrate.

Participant demonstrates abdominal thrusts for a conscious victim >12 months of age.

Facilitator says: Multiple abdominal thrusts do not relieve the upper airway obstruction.

Facilitator says: What should you do?

Participant demonstrates sequence of abdominal thrusts, inspecting mouth, and extracting visible objects for a choking victim >12 months of age.

Teaching points
- Recognize complete upper airway obstruction
- Demonstrate choking manoeuvres for victim >12 months of age

Case #2 Upper airway obstruction, foreign body, ≤12 months

Learning Objectives for Case Scenario #2:
- Accurately determine whether or not a patient’s airway is patent and adequate
- Accurately determine which maneuvers to relieve choking are appropriate for a child less than 12 months of age
- Effectively perform maneuvers to relieve choking
Repeat case #1 with a 10 month old victim. Observations and interventions are the same, except that student demonstrates back blows followed by chest thrusts, instead of abdominal thrusts.

**Teaching points**
- Demonstrate choking manoeuvres for children ≤12 months of age

**Case # 3 Upper airway obstruction, croup**

**Learning Objectives for Case Scenario #3:**
- Accurately determine whether or not a patient’s airway is patent and adequate
- Accurately assess the effectiveness of the patient’s breathing (oxygenation and ventilation).

**Facilitator says:** A 15 month girl presents to triage with respiratory distress.

**Facilitator says:** Demonstrate stridor. Where is the source of the patient’s distress?

**Participant says:** Upper airway obstruction

**Facilitator says:** She is alert and anxious, with moderate indrawing in the neck. Her color is pale.

**Facilitator says:** What should you do next?

**Participant says:** Maintain position of comfort. Administer oxygen, if tolerated. Get more history.

**Facilitator says:** She has had nasal congestion and a mild cough for two days. Last night, her voice was hoarse and she felt warm. She awoke this morning with a harsh cough and worsening respiratory distress.

**Facilitator says:** What should you do next? What is the likely source of her upper airway obstruction?
**Participant says:** Maintain position of comfort. Continue oxygen. Look for signs of thrush, diphtheria, or measles. If none are present, consider treating for viral croup (Hospital care for children, WHO, p. 92). Do not give steroids to children with thrush, diphtheria, or measles.

**Teaching points**
- Recognize partial airway obstruction
- Recognize importance of maintaining child’s position of comfort

**Case # 4 Respiratory failure, infant**

**Learning Objectives for Case Scenario #4:**
- Accurately determine whether or not a patient’s airway is patent and adequate.
- Accurately assess the effectiveness of the patient’s breathing (oxygenation and ventilation).
- Effectively position the patient to open the airway without history of neck trauma
- Give supplemental oxygen.
- Effectively provide bag mask ventilation with and without airway adjuncts.

**Facilitator says:** The caretaker of a four month old infant waiting to be seen brings the baby to the receptionist because she is concerned about his breathing.

**Facilitator says:** What should the receptionist look for?

**Participant says:** Emergency signs: Is the baby breathing? Is there cyanosis? Is there respiratory distress?

**Facilitator says:** Respirations are irregular and slow. The baby’s color is grey. There is indrawing of the chest. The clerk calls you from the triage room.

**Facilitator says:** What should you do?

**Participant says:** Bring the baby into the treatment room. Evaluate airway and breathing.

**Facilitator says:** The baby is limp and poorly responsive. Breathing is noisy. The color is grey.
**Facilitator says:** Why is the baby’s breathing noisy? What should you do?

**Participant says:** The tongue is obstructing the airway. There is no history of neck trauma. Reposition the airway with a chin lift maneuver.

**Facilitator says:** With repositioning, respirations are no longer noisy. The color does not improve. Respirations are irregular and slow.

**Facilitator says:** What should you do?

**Participant says:** The baby is having agonal, ineffective respirations. Begin bag mask ventilation. Evaluate for source of respiratory failure.

**Teaching points**
- Recognize an obstructed airway
- Perform appropriate maneuver to re-position airway
- Recognize inadequate respiratory effort (respiratory failure)
- Demonstrate effective bag mask ventilation

**Case # 5 Severe wheezing**

**Learning Objectives for Case Scenario #5:**
- Accurately determine whether or not a patient’s airway is patent and adequate.
- Accurately assess the effectiveness of the patient’s breathing (oxygenation and ventilation).
- Accurately assess level of respiratory distress
- Administer appropriate treatment
- Give supplemental oxygen.

**Facilitator says:** You call your next patient from the waiting room. The mother is carrying her three year old son. He is limp in her arms. She tells you that he has had a worsening cough for 5 days.

**Facilitator says:** What should you do?

**Participant says:** Bring him into the treatment room and evaluate airway and breathing.

**Facilitator says:** The airway is patent (breathing is noisy in expiration and he audibly moans when you take him away from his mother to put him on the examining table). He is breathing rapidly and there is marked indrawing of the chest.
Facilitator says: **What is your assessment of his condition?**

Participant says: He is in severe respiratory distress.

Facilitator says: **What should you do?**

Participant says: Give oxygen, keep him warm. Get more history and examine him.

Facilitator says: He has not had fever. He has had vomiting with coughing. He has not been able to drink. He has been prescribed medication for breathing in the past, but it ran out. He is audibly wheezing.

Facilitator says: **What should you do?**

Participant says: Continue oxygen. Give nebulized albuterol (or salbutamol).

Teaching points
- Recognize severe respiratory distress
- Evaluate for treatable causes
- Recognize wheezing
- Administer appropriate treatment (bronchodilator)

**Case # 6 Respiratory distress, infant**

**Learning Objectives for Case Scenario #6:**
- Accurately assess the effectiveness of the patient’s breathing (oxygenation and ventilation).
- Recognize emergency and priority signs in an infant <2 months
- Accurately assess level of respiratory distress
- Administer appropriate treatment

Facilitator says: As you are beginning a follow up well visit with a young boy, you notice that his mother has an infant swaddled in her lap. You notice that the baby's face is pale.
**Facilitator says:** What should you do?

**Participant says:** Tell the mother that you are concerned about the baby’s color. Ask her to unwrap the baby.

**Facilitator says:** The infant is quiet and poorly responsive.

**Facilitator says:** What signs are you looking for as you observe the baby?

**Participant says:** Emergency signs: Is the baby breathing? Is there cyanosis? Is there respiratory distress?

**Facilitator says:** The baby is breathing rapidly. Her color is pale. There is moderate indrawing of the chest.

**Facilitator says:** What is the baby’s condition?

**Participant says:** The baby is poorly responsive, has rapid breathing, and has chest indrawing. Her condition is emergent.

**Facilitator says:** What should you do next?

**Participant says:** Give oxygen, keep the baby warm, give first dose of antibiotic, and transfer urgently to hospital.

**Teaching points**
- Recognize emergency and priority signs in an infant <2 months
- Initiate appropriate treatment