EMERGENCY MEDICAL SERVICES SECTION

Fire Services

Firefighter Prehospital Care (FPC) Program
Module 5 - Primary Patient Assessment/Airway Management/O₂ Delivery
7 - Secondary Patient Assessment
8 - Reporting & Documentation

PRACTICAL SESSION OBJECTIVES

These practical session objectives are intended to assist both the STI and the learner with the practical sessions of Modules 5, 7, 8. There are four scenarios included as an addendum to these objectives. They can be used to work through various aspects of the primary and secondary assessments.

List of Practical Objectives

A) Scene safety

1. Demonstrate techniques for the assessment of scene safety
2. Demonstrate the skill of obtaining incident information into the overall scene assessment
3. Adapt scene management from information gained during continuous scene assessment
4. Integrate incident information into patient care duties

B) Primary & Secondary assessments

1. Apply appropriate sequential techniques for primary & secondary assessments
2. Modify assessment to different age groups
3. Perform techniques for primary & secondary assessment
4. Adapt assessment techniques to assessment findings
5. Perform procedures to address problems found in the primary assessment

C) Vital signs (Vitals) Assessment

1. Demonstrate pulse assessment, including rate, rhythm, and quality
2. Adapt techniques of obtaining pulse to patient situation
3. Demonstrate respiratory assessment
4. Obtain blood pressure by auscultation
5. Obtain blood pressure by palpation
6. Demonstrate assessment of skin condition
7. Demonstrate pupil assessment
8. Apply methods of assessing level of awareness
9. Apply AVPU to mental status assessment
10. Demonstrate assessment of level of awareness
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D) Airway maintenance

1. Demonstrate maneuvers and positioning of head, neck and jaw to improve airway patency
2. Perform manual airway maneuvers under a variety of patient and environmental presentations
3. Demonstrate management of potential complications of airway maneuvers
4. Operate appropriate suctioning devices
5. Perform suctioning using safe technique
6. Perform oropharyngeal airway (OPA) sizing procedures
7. Perform insertion of an OPA
8. Perform nasopharyngeal airway (NPA) sizing procedures *
9. Perform airway foreign body (AFB) removal under a variety of circumstances

E) Oxygen administration

1. Operate oxygen delivery system
2. Perform oxygen administration using a nasal cannula *
3. Perform oxygen administration using a high concentration mask
4. Perform oxygen administration using a pocket mask *
5. Perform ventilation using a bag-valve-mask
6. Evaluate the effectiveness of ventilation
7. Integrate assessment and patient care procedures
8. Redirect priorities based on ongoing assessment findings
9. Communicate changes to patient, family or primary caregiver(s)
10. Justify approach, care and evacuation decisions

* Indicates skill sets required by the Canadian National Firefighter Competency Profile using equipment not currently stocked by TFS and /or advocated by the Sunnybrook-Osler Centre for Pre-Hospital Care Firefighter Prehospital Care Program.

F) Control of external hemorrhage

1. Perform hemorrhage control through the use of direct pressure and patient positioning.
G) Reporting & documentation

1. Demonstrate a patient report to paramedics appropriate to the patient’s condition.

This Instructor Guide will examine each of the practical objectives and indicate general teaching points as well as critical ‘must know’ and ‘must do’ skills.

Teaching Points

A) Scene safety

1. Demonstrate techniques for the assessment of scene safety.
2. Demonstrate the skill of obtaining incident information into the overall scene assessment.
3. Adapt scene management from information gained during continuous scene assessment.
4. Integrate incident information into patient care duties.

The STI will discuss and demonstrate *EMCAP* and other techniques to ensure scene safety for the rescuers, patient and bystanders:

- Wear the appropriate level of PPE, gloves, gown and protective eyewear (as required)
- Use *EMCAP* as an initial assessment tool.
- Discuss potential risks on scene and how to mitigate those risks.
- Discuss the use of allied agencies, other city departments or outside contractors that may be called upon to mitigate those risks.
- Demonstrate how to adapt scene management and patient assessment based on the scene risks.

Scene safety teaching points to emphasize:

- Wearing proper PPE is critical, e.g. the eye can be a route of infection so protective eyewear must be worn.
- Protect the firefighters working environment. Ensure that PD secures crime scenes; power is off in the subway etc.
- Risk vs. benefit analysis (treating a viable patient vs. body recovery)
- Rapid dissemination of risk information between on-scene first responders and incoming responders.
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Scene safety ‘Must know’ points:
- When a patient should or should not be approached.
- EMCAP as an assessment tool.
- Roles of other agencies on scene
- Ability to adapt to small or large scenes to assess risks and patient needs.

‘Must do’ points:
- Discuss EMCAP as a tool describing what it stands for.
- Use EMCAP in a dynamic scenario using a live pseudo patient or mannequin.
- Using incident information to determine appropriate strategy to approach patient.

B) Primary & Secondary assessments

1. Apply appropriate sequential techniques for primary & secondary assessments
2. Modify assessment to different age groups
3. Perform techniques for primary & secondary assessment
4. Adapt assessment techniques to assessment findings
5. Perform procedures to address problems found in the primary assessment

The STI will discuss and demonstrate to the group a proper primary & secondary patient assessment.

Primary assessment teaching points to emphasize:

‘Must know’ points:
- Demonstrate the sequence of EMCAP, AVPU, ABC’s and neck to knees assessment.
- Discuss the following mnemonic, EMCAP, AVPU, ABC’s in addition to CLAPS-D and TICS-D and how they are used as assessment tools.
- Adapt techniques to different patients, including responsive vs. unresponsive adults, children and infants.
- Discuss TFS AED protocol and airway management skills to address critical interventions if found during a primary assessment.
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‘Must do’ points:
• Demonstrate with partner how to perform a sequential primary assessment.
• Use and describe the appropriate mnemonic of EMCAP, AVPU, ABC’s, CLAPS-D and TICS-D (Practical Test Part A)
• Adapt assessment sequence if faced with a critical intervention during primary assessment. (Practical Test Part A)

Secondary assessment teaching points to emphasize:

‘Must know’ points:
• Demonstrate the sequence of a head-to-toe assessment.
• Discuss the differences between a primary and secondary survey and the importance of re-assessment of ABC’s and critical interventions.
• Adapt techniques to different patients, including responsive vs. unresponsive adults, children and infants.
• Discuss TFS AED protocol and airway management skills to address critical interventions if found during a secondary assessment.

‘Must do’ points:
• Demonstrate with partner how to perform a sequential secondary assessment.
• Use and describe the appropriate mnemonic of SAMPLE. (Practical Test Part A)
• Adapt assessment sequence if faced with a critical intervention during a secondary assessment. (Practical Test Part A)

C) Vital signs (Vitals) Assessment

1. Demonstrate pulse assessment, including rate, rhythm, and quality.
2. Adapt techniques of obtaining pulse to patient situation.
3. Demonstrate respiratory assessment.
4. Obtain blood pressure by auscultation.
5. Obtain blood pressure by palpation.
6. Demonstrate assessment of skin condition.
7. Demonstrate pupil assessment.
8. Apply methods of assessing level of awareness (LOA).
9. Apply AVPU to mental status assessment.
10. Demonstrate assessment of level of awareness.
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STI to discuss and demonstrate ways to integrate a complete set of vital signs into a patient assessment.

**Vital signs teaching points to emphasize:**

- Landmarks and techniques required for obtaining a full set of vital signs.
- Patients and patient presentations may require techniques be adapted in order to obtain an accurate set of vitals.
- TFS crews may not always obtain a set of vitals if involved in the treatment of a critical intervention (i.e. airway management).
- Vital signs must be recorded to report to TEMS crews.

‘Must know’ points:

- How to obtain pulses using carotid, radial and brachial landmarks.
- How to identify which pulse points are appropriate to patient age and presentation.
- How to describe pulses using rate, rhythm and volume.
- How to obtain and report respiratory rates.
- How to obtain and report blood pressure values by palpation and auscultation.
- How to assess a patient’s pupils using PEARL assessment.
- How to assess and report a patient’s skin condition.
- How to assess a patient’s level of awareness using person, place and time questions.

‘Must do’ points:

- Complete a required workstation component. (Practical Test Part B)

To include:

- Pulses (carotid, radial and brachial) described in rate, rhythm and volume.
- Respiratory rate described in rate, rhythm and volume.
- Blood Pressure by both palpation and auscultation.
- Pupil Assessment.
- Skin condition, describing colour, temperature and moisture.
- Level of Awareness (LOA) to person, place and time.
D) Airway maintenance

1. Demonstrate maneuvers and positioning for head, neck and jaw which improve airway patency
2. Perform manual airway maneuvers under a variety of patient and environmental presentations
3. Demonstrate management of potential complications of airway maneuvers
4. Operate appropriate suctioning devices
5. Perform suctioning using safe technique
6. Perform oropharyngeal airway (OPA) sizing procedures
7. Perform insertion of an OPA
8. Perform nasopharyngeal (NPA) airway sizing procedures *
9. Perform airway foreign body (AFB) removal under a variety of circumstances

The STI will discuss and demonstrate appropriate airway maintenance.

Airway maintenance teaching points to emphasize:

- Understanding the mechanism of injury (MOI) is important as it may dictate how airway is managed.
- Discuss safe and effective suctioning. Speak to the use of appropriate PPE and proper suctioning technique.
- Review OPA use, sizing etc
- Discuss NPA use, sizing etc and indicate that TFS does not use at this time
- Discuss AFB removal and techniques for crews to use, i.e. Heimlich maneuver, chest thrusts.

‘Must know’ points:

- The indications for use of a modified jaw thrust vs. a head-tilt chin-lift
- The indications for patient suctioning
- The indications for OPA or NPA use
- Recognize a patient with an AFB identify the steps for removal
Airway maintenance ‘Must do’ points:
- Demonstrate a modified jaw thrust or a head-tilt chin-lift
- Adapt airway maintenance procedures if faced with new information or changing patient presentation

E) Oxygen administration

11. Operate oxygen delivery system
12. Perform oxygen administration using a nasal cannula *.
13. Perform oxygen administration using a high concentration mask
14. Perform oxygen administration using a pocket mask *
15. Perform ventilation using a bag-valve-mask
16. Evaluate the effectiveness of ventilation
17. Integrate assessment and patient care procedures
18. Redirect priorities based on ongoing assessment findings
19. Communicate changes to patient, family or primary caregiver(s)
20. Justify approach, care and evacuation decisions

Discuss & demonstrate oxygen administration based on patient assessment.

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Oxygen administration teaching points to emphasize:
- TFS crews will always uses a high concentration mask or BVM if the patient requires O₂
- Nasal cannula and pocket mask information is provided as a ‘FYI’
- Effective ventilation is very important. Use one hand to squeeze the BVM, delivering the ventilation over one second to achieve visible chest rise

‘Must know’ points:
- The indications for oxygen use
- When to use a BVM in place of a high concentration mask
- When ventilation is effective and what to do if it’s not.
Oxygen administration ‘Must do’ points:
- Demonstrate oxygen administration skills appropriate to the patient’s condition
- Adapt oxygen administration techniques based on patient’s condition

F) Control of external hemorrhage

1. Perform hemorrhage control through the use of direct pressure and patient positioning.

The STI will discuss and demonstrate hemorrhage control.

STI teaching points to emphasize:
- PPE is an important aspect of patient care
- Recognize that external hemorrhage may be life-threatening with a critical intervention required
- The critical intervention may be delegated
- The external hemorrhage may be one of many injuries. Do not forget to continue the patient assessment once the hemorrhage has been treated

‘Must know’ points:
- Discuss safe and effective hemorrhage control using direct pressure/dressings (one on top of the other) and patient positioning (head forward with a nosebleed)
- What is ‘appropriate’ PPE for this type of call

‘Must do’ points:
- Adapt the assessment sequence if faced with an external hemorrhage

G) Reporting and documentation

1. Demonstrate a patient report to paramedics appropriate to the patient’s condition

Reporting and documentation teaching points to emphasize:
- What you found
- What you did
- What you have now
Reporting and documentation ‘Must know’ points:
- What constitutes a good medical report. (What you found etc)

‘Must do’ points:
- Communicate a medical report that contains relevant patient information

Table 1 - Equipment needed for this module:

1. **Equipment & supplies available at EMS Training location**
   - Blood pressure cuff
   - Stethoscope
   - Asherman seal

2. **Equipment provided by attending crews**
   - AED Defibrillator (cables and case)
   - FPC bag
   - Personal safety protective eyewear
   - Personal training PP
A penetrating chest wound may lead to several significant problems. One immediate issue is the open pneumothorax that may lead to a collapse of the lung.

In this condition, air can move freely in and out of the pleural space. When breathing in, air is easily pulled into the pleural space, rather than the lung. When breathing out, the air is expelled from the pleural space, and the lung collapses.

A one-way chest seal quickly fixes this problem, by keeping air from moving into the pleural space but allowing it to escape. After several breaths, the lung will be re-expanded and functional.

The Asherman Chest Seal (Photo A.) is pre-packaged in a sterile bag with a 4 X 4 gauze sponge.

- Use the 4 X 4 to clean and dry the area around the chest wound.
- Peel off the protective paper liner, exposing the adhesive.
- Place the chest seal over the wound (Photo B.)
- With each breath, more air will be forced out through the flutter valve, which also keeps outside air from returning to the pleural space.

If an Asherman Chest Seal is not available, a variety of chest seals can be quickly made. Shown in photo C. is a plastic wrapper from a small dressing, covering the wound and taped to the chest with adhesive tape. Note that the wrapper is taped only on three sides, to allow air to escape. Moisture (blood, pleural fluid, etc.) underneath the plastic holds the plastic against the chest wall and keeps air from coming back into the pleural space during inhalation.

Any plastic-like material will work for this purpose, including plastic wrappers, and nitrile gloves.