Version History

Version	Date	Details
1	10th July 2014	This standard supersedes the previous Paramedic (RCS007-V2) and introduces course approval criteria previously set out in Council Rules (RUL006-V4). Content of standard unchanged.

Contents

Role and Professional Responsibility of a Paramedic

Paramedics are skilled emergency medical care practitioners who are trained to and maintain a high standard of professional competence. The role of a paramedic includes assessing of the needs of a patient, making informed clinical decisions, planning and delivering appropriate interventions whilst monitoring a patient's condition. Compared to the next lower level on the PHECC register (EMT), a paramedic possesses a higher skill set in patient management and has authorisation to a greater range of medications. In addition, the concept of professional development becomes a more significant aspect of this grade.

A paramedic focuses on the delivery of immediate, often live-saving patient care in diverse settings primarily outside of the traditional hospital environment. A paramedic is the minimum practitioner level that is trained for transporting inter-facility patients who are defined as Acuity Levels "Acute Non Emergent Care", "Acute Emergent Care" and "Mobile Intensive" (Ref: *PHECC's Inter Facility Patient Transfer Standard*). Paramedics will also be dispatched in response to the full spectrum of patients defined as Clinical Status Category "Life threatening", "Serious not life threatening" and "Non serious or life threatening" (Ref: *PHECC's EMS Priority Dispatch Standard*). By performing their role a paramedic aims to prevent and reduce mortality and morbidity due to illness and injury.

A paramedic must have fulfilled the educational and training requirements as prescribed by the Pre-Hospital Emergency Care Council (PHECC) and hold the National Qualification in Emergency Medical Technology (NQEMT) at the level of competence of the paramedic level. This award is required for registration with PHECC at the paramedic division. These educational and training standards ensure that paramedics possess the knowledge, skills and attitudes in-line with the expectations of the public and the profession.

Paramedics are also required to maintain their name on a national professional register and are required to maintain a high standard of training by active participation in continuous professional competency programmes.

Learning Outcomes for the Paramedic Standard

The standard is the expected competency of the student upon completion of a recognised course. A graduate, at the end of a recognised paramedic course, will be able to:

1. Provide the appropriate standard of patient care for Interfacility transfers and pre-hospital emergency care services.
2. Safely and appropriately access, retrieve and transport patients.
3. Adopt a professional approach to their practice.
4. Demonstrate a commitment to continuous professional competence.

A number of key domains arise from the course outcomes and are listed below. Note that these domains can cross over into more than one course outcome.

Learning Outcome 1
Provide the appropriate standard of patient care for interfacility transfers and pre-hospital emergency care services, including:

1. Recognition and assessment of both common life-threatening and common serious medical conditions.
2. Selection of an appropriate patient management plan, application of appropriate interventions as required, and the correct monitoring of the patient according to PHECC clinical practice guidelines and scope of practice
3. Appropriate on-going maintenance of the patient record and utilisation of correct patient handover procedures.

Learning Outcome 2
Safely and appropriately access, retrieve and transport patients.

Learning Outcome 3
Adopt a professional approach to their practice by

1. Retaining a professional manner and method in the performance of their duties
2. Basing their professional practice on a solid foundation of both basic and clinical sciences.
3. Utilising best practice as prescribed by pre-hospital standard operational procedures and CPGs.

Learning Outcome 4
Demonstrate a commitment to continuous professional competence**.**

1. Maintaining personal well-being and professional relationships with colleagues
2. Identify with the role of the paramedic

The learning objectives in the standard refer to the management of adults and paediatrics unless stated otherwise. The standard of care management for patients with general medical emergencies and trauma is outlined in PHECC clinical practice guidelines (CPGs) and includes medication administration where indicated. The CPGs may be accessed from the website of the PHECC www.phecc.ie.

Framework for the Paramedic Standard

Framework for the paramedic Standard		
Learning Outcome (L)	**Educational Domain (D)**	**Module(s)**
Provide the appropriate standard of patient care for Interfacility transfers and pre-hospital emergency care services **(**L1)	Recognition and assessment of both common life-threatening and common serious medical conditions (L1D1)	1. Primary Survey 2. Secondary Survey
	Selection of an appropriate patient management plan, application of appropriate interventions as required, and the correct monitoring of the patient (L1D2)	3. Airway and ventilation 4. Respiratory emergencies 5. Cardiac First Response[1] 6. Cardiovascular emergencies 7. Diabetic emergencies 8. Allergies and anaphylaxis 9. Poisoning and overdose 10. Environmental emergencies 11. Mental health and behavioural emergencies 12. Altered level of consciousness and seizures 13. Bleeding and shock 14. Soft tissue injuries 15. Musculoskeletal injuries 16. Head and spinal injuries 17. Pregnancy and pre-delivery emergencies 18. Childbirth and neonatal resuscitation 19. Paediatrics
	Appropriate on-going maintenance of the patient record and utilisation of correct patient handover procedures (L1D3)	1. Health information management 2. Communications

[1] The CFR Advanced level course is either a pre-requisite or co-requisite.

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Framework for the paramedic Standard		
Learning Outcome (L)	**Educational Domain (D)**	**Module(s)**
Safely and appropriately access, retrieve and transport patients (L2)		1. Basic patient care 2. Scene assessment 3. Gaining access to the patient at scene 4. Ambulance operations
Adopt a professional approach to their practice (L3)	Retaining a professional manner and method in the performance of their duties (L2D1)	1. Professional practice & medico-legal issues concerning the paramedic 2. Patient safety and Quality assurance
	Basing their professional practice on a solid foundation of both basic and clinical sciences (L2D2)	1. Clinical anatomy and physiology 2. Pharmacology 3. Infection prevention and control 4. Intravenous/intraosseous therapy 5. Intramuscular injection
	Utilising best practice as prescribed by pre-hospital standard operational procedures and CPGs (L2D3)	1. Radio communications 2. Hazardous Material Incident 3. Major Emergency 4. Civil disorder 5. Treat and refer
Demonstrate a commitment to continuous professional competence **(L4)**	Maintaining personal well-being and professional relationships with colleagues (L4D1)	1. The well-being of the paramedic
	Identify with the role of the paramedic (L4D2)	1. Continuum of pre-hospital emergency care 2. Manage personal work priorities and professional development 3. Interpersonal and team management skills 4. Mentorship

Learning Outcome 1 – Domain 1

Provide the appropriate standard of patient care for interfacility transfers and pre-hospital emergency care services	Recognition and assessment of both common life-threatening and common serious medical conditions

Primary Survey

At the completion of this module the student will be able to describe and demonstrate the elements of a primary survey for the medical and trauma patient while considering pre-arrival information and maintaining scene safety while initiating interventions essential to maintain life in accordance with the appropriate CPG(s) and scope of practice for a paramedic.

Knowledge Objectives

At the completion of this section, the student will be able to:

1. Identify the assessments made under the following as part of a Primary survey for a medical and trauma patient as appropriate:
    - **C**atastrophic haemorrhage
    - **A**irway
    - **c**- spine
    - **B**reathing
    - **Ci**rculation
    - **D**isability
    - **E**xposure
2. Differentiate between a clear, partially obstructed and obstructed airway
3. State the reason for the maintenance of in line immobilisation following serious trauma
4. Differentiate between normal, abnormal, fast, slow and absent breathing rates and between shallow, laboured and noisy breathing
5. Differentiate between regular, irregular, fast and slow and absent pulse rates
6. Discuss the need for assessing the patient for external bleeding
7. Differentiate between normal, pale, flushed and cyanosed skin tones including temperature variations
8. Identify normal and abnormal capillary refill time
9. Outline the methods for assessing Disability or AVPU assessment
10. List the procedure for Exposure to check for obvious injuries or illness
11. Explain the need for consent prior to assessment and or care management
12. Outline the categories in a “Clinical Status” decision (on the PCR)
13. Explain the reasons for prioritising the patient for care and transportation
14. Outline the rationale for seeking Advanced Life Support

15. Explain the need for consent prior to assessment and or care management

Attitudinal Objectives

At the completion of this section, the student will be able to:

1. Explain why basic life support airway and ventilation skills, take priority over most other emergency care skills
2. Value pre- arrival instructions
3. Discuss the importance of performing a primary survey
4. Recognise and respond appropriately to the feelings patients experience during assessment

Skills Objectives

At the completion of this section, the student will be able to:

1. Demonstrate the appropriate patient assessments made as part of a Primary survey for a medical and trauma patient
2. Demonstrate obtaining consent from a patient prior to commencing emergency care
3. Following completion of a primary survey make a clinical status decision

Secondary Survey

At the completion of this module the student will be able to describe and demonstrate the elements of a secondary survey for the medical and trauma patient while considering findings and initiating care management in accordance with the appropriate CPG(s) and scope of practice for a paramedic.

Knowledge Objectives

At the completion of this section, the student will be able to:

1. Define clinical impression
2. Distinguish between a sign and symptom
3. Distinguish between chief complaint and clinical impression
4. Distinguish between a secondary survey for a medical and trauma patient
5. Differentiate between objective and subjective assessment
6. Collate a history based on the interview pneumonic SAMPLE: **S**igns & **S**ymptoms, **A**llergies, **M**edication, **P**ertinent medical history, **L**ast intake, **E**vent
7. Collate a focused history based on the interview pneumonic OPQRST: **O**nset, **P**rovocation, **Q**uality, **R**egion/Referral/Recurrence/Relief, **S**everity and **T**ime
8. List the components of the detailed physical exam/ head to toe survey
9. Describe the methods for assessing circulation, sensation and movement (CSM)
10. Outline the precautions to take during and after searching the patient for identification and medical history clues
11. List the elements to be measured when obtaining a Glasgow coma score (GCS)
12. Outline the variables when calculating an early warning score
13. Outline the variables when calculating a revised trauma score (RTS)
14. Describe the areas included in the rapid trauma assessment and discuss what should be evaluated
15. Identify markers for acutely unwell and multi-system trauma patients
16. Outline the techniques of assessing a patients vital signs
17. State the normal ranges for adults, infants and children for
    - Pulse rate
    - Respiration rate
    - Temperature
    - Blood pressure
18. Explain the physiology of pain
19. Describe pain assessment for adults and children using the interview mnemonic PQRST (**P**rovocation, **Q**uality, **R**egion, **R**eferral, **R**ecurrence, **R**elief, **S**everity and **T**ime).The student should be able to employ the following pain quality descriptors:
    a. Stabbing
    b. Crushing
    c. Acute
    d. Chronic
    e. Pulsating

f. Burning
g. Dull
h. Cramps

20. Explain how to measure pain on the pain analogue scale 0-10
21. Discuss referred pain with reference to mechanism, recognition and common sites of occurrence
22. Explain the value of performing a continuous assessment
23. Explain normal air entry and match breath sounds with lung conditions
24. Describe how to measure the patient expiratory peak flow rate using a peak flow meter

Attitudinal Objectives

At the completion of this section, the student will be able to:

1. Explain the value of performing the baseline vitals and subsequent vital signs
2. Communicate in an appropriate professional and caring manner, during patient assessment, with patients as well as with family members and friends of the patient
3. Explain the need for team work when multidisciplinary pre-hospital emergency services are at an incident
4. Recognise that all patients have the capacity to make decisions until the contrary is demonstrated
5. Discuss the scale of examination necessary in a variety of situations

Skills Objectives

At the completion of this section, the student will be able to:

1. Demonstrate assessing vital signs
2. Demonstrate questioning the patient to obtain a SAMPLE history
3. Demonstrate questioning the patient to obtain a OPQRST history
4. Demonstrate obtaining additional information from the family members or bystanders at the scene as appropriate
5. Demonstrate auscultation of air entry and interpretation of breath sounds
6. Demonstrate the measurement of an expiratory peak flow rate and compare the result with the expected value
7. Demonstrate assessment of a GCS
8. Demonstrate an early warning score calculation
9. Demonstrate the detailed physical exam/ head to toe survey including inspection, palpation and assessment of CSMs as appropriate for a trauma patient
10. Demonstrate the pre-hospital emergency assessment of the patient in pain using the pain analogue scale (0-10)
11. Demonstrate obtaining a blood glucose level using a glucometer
12. Demonstrate rapid assessment based on the mechanism of injury
13. Evaluate a patients capacity to make decisions

Learning Outcome 1 – Domain 2

Provide the appropriate standard of patient care for interfacility transfers and pre-hospital emergency care services	Selection of an appropriate patient management plan, application of appropriate interventions, and the correct monitoring of the patient according to PHECC clinical practice guidelines and scope of practice

Airway and Ventilation

At the completion of this module, the student will be able to establish and maintain a patient airway and be able to oxygenate and ventilate a pre-hospital patient in accordance with the appropriate CPG(s) and scope of practice for a paramedic.

Note this module must be considered with the Airway and Ventilation module from the CFR Advanced level course.

Knowledge Objectives

At the completion of this section, the student will be able to:

1. Explain the pathophysiology of airway compromise
2. Describe the steps in head-tilt chin lift and jaw thrust
3. Describe how to measure and insert a nasopharyngeal (NPA) airway
4. List the indications and contraindications for use of an OPA, NPA or a supraglottic airway (SGA)
5. Describe the benefits and limitations of ventilating the patient with a bag valve mask (BVM)
6. Describe ventilating the patient with a BVM (one and two rescuers)
7. Explain the principles of safe operation for an oxygen delivery system
8. Outline the different techniques in oxygen administration using a simple face mask, a venturi mask and nasal cannula
9. Identify a tracheostomy and outline the particular airway patency requirements
10. Explain the indications for use, benefits and limitations of oxygen humidification
11. List the equipment required for endotracheal intubation
12. Explain the indications for use, benefits and limitations of end tidal CO_2 monitoring in a ventilation circuit
13. Explain the indications for use, benefits and limitations of pulse oxymetry

Attitudinal Objectives

At the completion of this section, the student will be able to:

1. State the value of oxygen administration
2. Relate the mechanism of injury to opening the airway

3. Communicate effectively with patients with airway and breathing problems, as well as with family members and friends of the patient

Skills Objectives

At the completion of this section, the student will be able to:

1. Demonstrate head-tilt chin lift and jaw thrust
2. Demonstrate the insertion of a nasopharyngeal airway
3. Demonstrate ventilating the patient with a BVM (one and two rescuers)
4. Demonstrate suctioning and ventilation of the patient with a tracheostomy
5. Demonstrate the safe preparation and operation of an oxygen delivery system
6. Demonstrate oxygen administration for a range of patient scenarios (adult, infant and child) using appropriate oxygen administration equipment including a pulse oximeter
7. Demonstrate the assembly and checks of endotracheal intubation equipment
8. Demonstrate assisting an Advanced Paramedic in ventilating an intubated patient

Respiratory Emergencies

At the completion of this module, the student will be able to describe the relevant pathophysiology of respiratory disease and as a result be able to assess and manage the care of a pre-hospital patient with a respiratory emergency in accordance with the appropriate CPG(s) and scope of practice for a paramedic.

Knowledge Objectives

At the completion of this section, the student will be able to:

1. Define the terms Pulmonary Embolism, pulmonary oedema, Asthma, Pneumonia, Pleurisy, Cystic Fibrosis, Pneumothorax, Chronic Obstructive Pulmonary Disease; Bronchitis and Emphysema and list the history, signs and symptoms commonly associated with each condition
2. Discuss the term hypoxic drive and its relationship with Chronic Obstructive Pulmonary Disease
3. Describe the pre-hospital emergency assessment findings and care management for the patient with inadequate respirations
4. Describe the signs of respiratory depression secondary to known or suspected narcotic overdose
5. Differentiate between inadequate respirations and respiratory failure
6. List the signs of respiratory arrest

Attitudinal Objectives

At the completion of this section, the student will be able to:

1. Explain the rationale for the feelings that patients with inadequate breathing may be experiencing
2. Communicate effectively with the patient and family members and friends

Skills Objectives

At the completion of this section, the student will be able to:

1. Demonstrate the pre-hospital emergency assessment and care management for the patient with a respiratory arrest
2. Demonstrate the pre-hospital emergency assessment and care management for the patient with inadequate respirations

Cardiovascular Emergencies

At the completion of this module, the student will be able to describe the relevant pathophysiology of cardiovascular disease and as a result be able to assess and manage the care of a pre-hospital patient with a cardiovascular emergency including stroke in accordance with the appropriate CPG(s) and scope of practice for a paramedic.

Knowledge Objectives

At the completion of this section, the student will be able to:

1. Define the terms: Hypertension, Palpitations, Aortic Aneurysm, Heart failure, Acute Coronary Syndrome; Myocardial infarction, Angina and list the history, signs and symptoms commonly associated with each condition
2. Define the terms Stroke , Transient Ischaemic Attack (TIA) and list the history, signs and symptoms commonly associated with each
3. Describe the pre-hospital emergency assessment findings and care management for the patient with a TIA and a stroke
4. Discuss the pre-hospital emergency assessment findings and care management for the patient with cardiac chest pain
5. Identify PQRST on a normal Electrocardiograph (ECG) rhythm strip
6. The characteristics, description and significance of the ECG waves, complexes, interval and segments
7. Identify the following rhythms from ECG Lead II: Normal Sinus Rhythm, Bradycardia, Tachycardia, Premature Ventricular Complexes, Ventricular Fibrillation, Ventricular Tachycardia, Asystole, Pulseless Electrical Activity
8. List the differential diagnosis for a patient with chest pain
9. Explain the importance of ST segment elevation and depression and identify the site of infarct reading an ECG
10. Define ST elevation myocardial infarct and non ST myocardial infarction in terms of a 12 lead ECG
11. Discuss the position of comfort for patients with various cardiac emergencies
12. Explain the importance of Advanced Life Support (ALS) for cardiovascular emergencies
13. Define the role of the paramedic in the chain of survival
14. Explain the importance of time critical transport to the appropriate medical facility for cardiovascular emergencies including stroke
15. Discuss the reasons for the acquisition of a 12 Lead ECG
16. Discuss the pre-hospital emergency care management for the patient with persistent ventricular fibrillation/ shockable rhythm with and without the assistance of Advanced Life Support (ALS)
17. Discuss the pre-hospital emergency care management for the patient with recurrent ventricular fibrillation/ shockable rhythm with and without the assistance of ALS
18. Discuss the pre-hospital emergency care management for the patient found in Asystole/PEA and with and without the assistance of ALS
19. Differentiate between the single rescuer and multi rescuer care with an AED

20. Discuss the importance of coordination between ALS trained practitioners, other practitioners and Responders using an AED
21. List the benefits of a mechanical assist CPR device
22. Discuss the indications, contraindications and benefits of active cooling in post resuscitation care
23. List the circumstances when a registered paramedic or advanced paramedic can discontinue resuscitation efforts including traumatic cardiac arrests
24. List the advanced cardiac medications that an AP can administer

Attitudinal Objectives

At the completion of this section, the student will be able to:

1. Demonstrate a caring attitude towards the patient with cardiac chest pain who requests pre-hospital emergency care
2. Communicate with empathy with family members and friends of the patient during a cardiac event

Skills Objectives

At the completion of this section, the student will be able to:

1. Demonstrate the pre-hospital emergency assessment and care management for the patient with cardiac chest pain
2. Demonstrate the pre-hospital emergency assessment and care management for the patient with a TIA and Stroke
3. Demonstrate correct positioning of electrodes and leads to monitor patient's ECG
4. Demonstrate the acquisition and transmission of a 12 Lead ECG
5. Given a 12 lead ECG, identify an STEMI and identify the location of the infarct
6. Demonstrate the ability to identify and interpret selected ECG Lead II readings: Normal Sinus Rhythm, Sinus Bradycardia, Sinus Tachycardia, Sinus Rhythm with Premature Ventricular Contractions, Ventricular Fibrillation, Ventricular Tachycardia, Asystole, and Sinus Rhythm with ST Elevation
7. Demonstrate the completion of the AED: Operator's Shift Checklist
8. Demonstrate the care management of the various cardiac arrest presentations with and without the assistance of ALS
9. Demonstrate the preparation of pre-filled syringe (mini-jet) cardiac medications
10. Demonstrate loading a patient in a cardiac arrest onto a trolley stretcher with minimum hands off time

Diabetic Emergencies

At the completion of this module, the student will be able to describe the relevant pathophysiology of diabetic disease and as a result be able to assess and manage the care of a pre-hospital patient with a diabetic emergency in accordance with the appropriate CPG(s) and scope of practice for a paramedic.

Knowledge Objectives

At the completion of this section, the student will be able to:

1. Define the terms: diabetes mellitus: Type I and II, gestational diabetes, hyperglycaemia and hypoglycaemia and list the history, signs and symptoms commonly associated with each condition
2. Discuss the pre-hospital emergency assessment findings and care management for the patient with a glycaemic emergency both with and without an altered level of consciousness

Attitudinal Objectives

At the completion of this section, the student will be able to:

1. Communicate effectively with the patient as well as with family members and friends of the patient

Skill Objectives

At the completion of this section, the student will be able to:

1. Demonstrate the pre-hospital emergency assessment and care management for the patient with hypoglycaemia
2. Demonstrate the pre-hospital emergency assessment and care management for the patient with hyperglycaemia

Allergies and Anaphylaxis

At the completion of this module, the student will be able to assess and administer care to a pre-hospital patient with an allergic response, including anaphylaxis, in accordance with the appropriate CPG(s) and scope of practice for a paramedic.

Knowledge Objectives

At the completion of this section, the student will be able to:

1. Outline the common antigens most frequently associated with anaphylaxis
2. Discuss the 4 types of allergic response
3. Describe the mechanisms of allergic response and the implications for airway management
4. Discuss the pre-hospital emergency assessment findings and care management for the patient with an allergic reaction
5. Discuss the pre-hospital emergency care assessment findings and care management for the patient with anaphylaxis
6. Discuss the relationship between the patient with a severe allergic reaction and airway management
7. Differentiate between those patients having a mild allergic reaction and those patients having a severe allergic reaction

Attitudinal Objectives

At the completion of this section, the student will be able to:

1. Explain the rationale for the symptoms that a patient with an allergic reaction may be experiencing
2. Communicate effectively with the patient and family members and friends

Skill Objectives

At the completion of this section, the student will be able to:

1. Demonstrate the pre-hospital emergency assessment and care management for the patient with an allergic reaction
2. Demonstrate the pre-hospital emergency assessment and care management for the patient with anaphylaxis

Poisoning and Overdose

At the completion of this module, the student will be able to assess and administer care to a poisoned or overdose pre-hospital patient, in accordance with the appropriate CPG(s) and scope of practice for a paramedic.

Knowledge Objectives

At the completion of this section, the student will be able to:

1. List various ways poisons enter the body
2. Name the main types of poison
3. Describe the pre-hospital emergency assessment findings and care management for the patient with suspected poisoning
4. Establish the relationship between the patient suffering from poisoning or overdose and airway management
5. List the common products most frequently used for illicit drug abuse including solvents
6. Describe the signs and symptoms which may indicate illicit drug abuse
7. Explain why oxygen therapy is contra-indicated in Paraquat poisoning
8. Explain toxidromes and list the main categories
9. Given a set of sign and symptoms identify the appropriate toxidrome category

Attitudinal Objectives

At the completion of this section, the student will be able to:

1. Explain the rationale for the symptoms that the patient with poisoning, overdose or deliberate self- harm may be experiencing
2. Communicate effectively with the patient and family members and friends

Skill Objectives

At the completion of this section, the student will be able to:

1. Demonstrate the pre-hospital emergency assessment and care management for the patient with suspected poisoning
2. Demonstrate the pre-hospital emergency assessment and care management for the patient suffering the effects of solvent abuse

Environmental Emergencies

At the completion of this module, the student will be able to describe the relevant pathophysiology of environmental emergencies. In addition they will learn how to assess and administer care to a pre-hospital patient with adverse environmental exposure, in accordance with the appropriate CPG(s) and scope of practice for a paramedic.

Knowledge Objectives

At the completion of this section, the student will be able to:

1. Describe the process of temperature regulation in the body
2. Explain the pre-hospital emergency care assessment findings and care management for the patient exposed to cold
3. Explain the indications, contraindications and benefits of active warming
4. Explain the pre-hospital emergency care assessment findings and care management for the patient exposed to heat (heat stroke, heat exhaustion and sun stroke)
5. Describe the complications of drowning
6. Explain the pre-hospital emergency care assessment findings and care management for a submersion incident
7. Discuss the pre-hospital emergency care assessment findings and care management for the patient with bites and stings including the possibility of anaphylaxis
8. Explain the pre-hospital emergency care assessment findings and care management for the patient with decompression illness

Attitudinal Objectives

At the completion of this section, the student will be able to:

1. Explain the rationale for the feelings that the patient with an environmental emergency may be experiencing
2. Communicate effectively with the patient and family members and friends

Skill Objectives

At the completion of this section, the student will be able to:

1. Demonstrate the pre-hospital emergency assessment and care management for the patient with exposure to cold
2. Demonstrate the pre-hospital emergency assessment and care management for the patient with exposure to heat (heat stroke, heat exhaustion and sun stroke)
3. Demonstrate the pre-hospital emergency assessment and care management for the submersion patient
4. Demonstrate the pre-hospital emergency assessment and care management for the patient with decompression illness
5. Demonstrate the pre-hospital emergency care assessment and care management for the patient with bites and stings

Mental Health and Behavioural Emergencies

At the completion of this module, the student will be able to assess and manage the care of a pre-hospital patient with acute, severe behavioural problems in accordance with the appropriate CPG(s) and scope of practice for a paramedic.

The student will be able to demonstrate effective and appropriate communication strategies, both towards the patient and with other colleagues, when dealing with patients with behavioural emergencies. The student will also be able to explain the relevant legislation impacting upon their professional practice.

Knowledge Objectives

At the completion of this section, the student will be able to:

1. Define the terms: deliberate self- harm, parasuicide and suicidal behaviour
2. Explain the spectrum of activities related to suicidal behaviour
3. Define a behavioural emergency
4. Define a mental health emergency
5. Describe the mental health issues that may arise in the older patient
6. List the factors that may contribute to a mental health/ behavioural emergency
7. Discuss legal considerations when managing mental health/ behavioural emergencies, the Mental Treatment Act 1945 and the Mental Health Act, 2001
8. Discuss the principles for assessing persons with a mental health/ behavioural emergency including mental health status
9. Identify communication strategies that can be utilised when attending to a mental health/ behavioural emergency
10. Discuss the reasons for psychological crises
11. Describe the Irish Mental Health Services
12. Discuss mental health disorders with particular reference to how they may contribute to a mental health/ behavioural emergency
13. Discuss measures to be taken to ensure the safety of the patient, paramedic and others
14. Discuss how de-escalation techniques are used in the management of a behavioural disturbed person
15. The special consideration around capacity evaluation for the patient with behavioural/mental health disorder

Attitudinal Objectives

At the completion of this section, the student will be able to:

1. Explain the rationale for learning how to modify behaviour toward the patient with a behavioural emergency

2. Explain the importance of the use of verbal and non-verbal communications skill, including interpersonal skills
3. Demonstrate the importance of recognising a person's emotional distress
4. Explain the rationale for the provisions of information to the receiving personnel, with particular regard to family, environmental and behavioural circumstances

Skill Objectives

At the completion of this section, the student will be able to:

1. Demonstrate competence in the effective use of interpersonal communication skills
2. Demonstrate de-escalation skills and physical intervention skills to provide the best care and welfare as well as safety and security for all involved during a behavioural emergency
3. Demonstrate the pre-hospital emergency assessment and care management for the patient who has deliberately self-harmed
4. Demonstrate the pre-hospital management following a suicide death

Altered level of Consciousness and Seizures

At the completion of this module, the student will be able to describe the relevant pathophysiology leading to altered levels of consciousness and seizure and as a result be able to assess and manage the care of a pre-hospital patient with such conditions in accordance with the appropriate CPG(s) and scope of practice for a paramedic.

Knowledge Objectives

At the completion of this section, the student will be able to:

1. Describe the following conditions: Parkinson's disease, Motor Neuron Disease, Multiple Sclerosis
2. Define the terms: Dysphagia and Dysphasia
3. Discuss the relationship between airway management and the patient with an altered level of consciousness or seizures
4. Discuss the medical causes of unconsciousness
5. State the causes of acute confusion
6. Describe the common causes and the clinical features of seizures
7. Describe the pre-hospital assessment findings and care management for the patient with a seizure , post seizure and in the postictal state

Attitudinal Objectives

At the completion of this section, the student will be able to:

1. Demonstrate a caring professional attitude towards the patient who regains consciousness among strangers
2. Communicate effectively with the patient and the family members and friends

Skill Objectives

At the completion of this section, the student will be able to:

1. Demonstrate the pre-hospital emergency assessment and care management for the patient with a seizure and post seizure
2. Demonstrate the pre-hospital emergency assessment and care management for the patient in a state of acute confusion
3. Demonstrate the pre-hospital emergency assessment and care management for the unconscious patient

Bleeding and Shock

At the completion of this module, the student will be able to describe the relevant pathophysiology of bleeding and shock and as a result be able to assess and manage the care of a pre-hospital patient with bleeding and shock in accordance with the appropriate CPG(s) and scope of practice for a paramedic.

Knowledge Objectives

At the completion of this section, the student will be able to:

1. Explain the significance of the Golden Hour and the Platinum 10 minutes in terms of trauma care
2. Differentiate between arterial, venous and capillary bleeding
3. Describe the pre-hospital emergency assessment findings and care management for the patient with external haemorrhage (to include AV shunts)
4. Explain the rationale for tourniquet use in exceptional circumstances
5. Explain the relationship between airway management and the trauma patient
6. Establish the relationship between the mechanism of injury and internal haemorrhage
7. Describe the pre-hospital emergency assessment findings and care management for the patient with internal haemorrhage
8. Define shock and explain the different types include non- traumatic shock (e.g. meningococcal meningitis)
9. Explain the significance of a purpuric rash
10. Explain the classification of haemorrhage
11. Describe the physiological effects of various classifications of shock
12. Describe the manifestation of shock in relevant body systems
13. Describe in the correct sequence the body's response/reaction to uncontrolled blood loss, compensated and uncompensated
14. Describe the pre-hospital emergency assessment findings and care management for the patient with hypovolaemic shock
15. Explain the sense of urgency to transport patients that are bleeding and show signs of hypovolaemic shock
16. Outline the pre-hospital emergency assessment findings and care management for the patient with a penetrating chest injury
17. Outline the pre-hospital emergency assessment findings and care management for the patient with an open wound to the abdomen
18. Outline the pre-hospital emergency assessment findings and care management for the patient with an impaled object
19. List the chest injuries due to direct trauma that present with dyspnoea
20. List the functions of dressing and bandaging
21. Describe types of wounds and their complications
22. Explain the pre-hospital emergency assessment findings and care management for the patient experiencing acute abdominal pain

Attitudinal Objectives

At the completion of this section, the student will be able to:

1. Explain the rationale for the symptoms that the patient with bleeding and shock may be experiencing
2. Communicate effectively with the patient and family members and friends

Skills Objectives

At the completion of this section, the student will be able to:

1. Demonstrate the pre-hospital emergency assessment and care management for the patient with external bleeding
2. Demonstrate the pre-hospital emergency assessment and care management for the patient with internal bleeding
3. Demonstrate the pre-hospital emergency assessment and care management for the patient with hypovolaemic shock
4. Demonstrate the pre-hospital emergency assessment and care management for the patient with non traumatic shock
5. Demonstrate the pre-hospital emergency assessment and care management for the patient with an open chest wound
6. Demonstrate the pre-hospital emergency assessment and care management for the patient with an open abdominal wound
7. Demonstrate the pre-hospital emergency assessment and care management for the patient with an impaled object
8. Demonstrate the pre-hospital emergency assessment and care management for the patient with crush injuries
9. Demonstrate the pre-hospital emergency assessment and care management for the patient experiencing acute abdominal pain

Soft-Tissue Injuries

At the completion of this module, the student will be able to list the major types of soft-tissue injury and be able to assess and manage the care of a pre-hospital patient with a soft-tissue injury in accordance with the appropriate CPG(s) and scope of practice for a paramedic.

Knowledge Objectives

At the completion of this section, the student will be able to:

1. List the types of closed soft tissue injuries
2. Outline the pre-hospital emergency assessment findings and care management for the patient with a closed soft tissue injury
3. State the types of open soft tissue injuries
4. Outline the pre-hospital emergency assessment findings and care management for the patient with an open soft tissue injury
5. Identify sources of burns
6. Differentiate between superficial, partial thickness and full thickness burns
7. Explain the burn surface area calculation using Wallace's rule of nines
8. Outline the pre-hospital emergency assessment findings and care management of the patient with burns
9. Describe the pre-hospital emergency assessment findings and care management for the patient with eye injuries
10. Describe the pre-hospital emergency assessment findings and care management for the patient with an epistaxis
11. Describe the pre-hospital emergency assessment findings and care management for the patient with a genito-urinary presentation
12. Describe the pre-hospital emergency assessment findings and care management for the patient with avulsed teeth

Attitudinal Objectives

At the completion of this section, the student will be able to:

1. Demonstrate effective management of the patient with a soft tissue injury who has requested pre-hospital emergency care
2. Communicate effectively with the patient and family members and friends

Skills Objectives

At the completion of this section, the student will be able to:

1. Demonstrate the pre-hospital emergency assessment and care management for the patient with closed soft tissue injuries
2. Demonstrate the pre-hospital emergency assessment and care management for the patient with open soft tissue injuries
3. Demonstrate the pre-hospital emergency assessment and care management for the patient with burns
4. Demonstrate the pre-hospital emergency assessment and care management for the patient with eye injuries
5. Demonstrate the pre-hospital emergency assessment and care management for the patient with an epistaxis
6. Demonstrate the pre-hospital emergency assessment and care management for the patient with a genito-urinary presentation
7. Demonstrate the pre-hospital emergency assessment and care management for the patient with avulsed teeth

Musculoskeletal Injuries

At the completion of this module, the student will be able to list the major types of musculoskeletal injury and be able to assess and manage the care of a pre-hospital patient with a musculoskeletal injury in accordance with the appropriate CPG(s) and scope of practice for a paramedic.

Knowledge Objectives

At the completion of this section, the student will be able to:

1. Differentiate between an open and a closed painful, swollen, deformed extremity
2. State the reasons for splinting an injured limb
3. List the benefits of using a splinting device on upper limbs
4. List the general rules of and complications of splinting
5. Describe the pre-hospital emergency assessment findings and care management for the patient with a limb fracture
6. Explain how to manual stabilise a fractured limb
7. Outline the rationale for attempting to realign a fractured limb
8. Define the terms: fracture, dislocation, sprain and strain and list the history, signs and symptoms commonly associated with each
9. List the types of fracture and causes of each
10. Explain the rationale for splinting at the scene versus treat and transport
11. Outline the pre-hospital emergency assessment findings and care management for the patient with a traumatic amputation
12. List the potential complications associated with pelvic injuries
13. Outline the pre-hospital emergency assessment findings and care management for the patient with crush injuries

Attitudinal Objectives

At the completion of this section, the student will be able to:

1. Demonstrate effective management for the patient with a musculoskeletal injury who has requested pre-hospital emergency care
2. Communicate effectively with the patient and family members and friends

Skills Objectives

At the completion of this section, the student will be able to:

1. Demonstrate the pre-hospital emergency assessment and care management for the patient with a painful, swollen, deformed extremity
2. Demonstrate the use of approved immobilisation/ splinting devices[2]

[2] Approved devices as per the PHECC CPGs.

3. Demonstrate the pre-hospital emergency assessment and care management for the patient with a traumatic amputation
4. Demonstrate the pre-hospital emergency care of an amputated part
5. Demonstrate the pre-hospital emergency assessment and care management for the patient with pelvic injuries
6. Demonstrate the pre-hospital emergency assessment and care management for the patient with crush injuries

Head and Spinal Injuries

At the completion of this module, the student will be able to assess and manage the care of a pre-hospital patient with a head and or suspected spinal injury in accordance with the appropriate CPG(s) and scope of practice for a paramedic. In particular, the student will be able to demonstrate the specific procedures for safe extrication, protection and transport of a patient with a head and or suspected spinal injury.

Knowledge Objectives

At the completion of this section, the student will be able to:

1. Relate the mechanism of injury to potential injuries of the head and spine
2. Describe the implications of not managing potential spinal injuries
3. Outline the trauma indicators for a decision not to immobilise the spine
4. Explain the rationale for immobilisation of the entire spine when a spinal injury is suspected
5. Describe how to manually stabilise the cervical spine
6. Discuss indications for sizing and applying a cervical collar
7. Describe a method for sizing a cervical collar
8. Describe how to log roll the patient with a suspected spinal injury
9. Describe how to secure the patient to a long spine board
10. List the indicators for using a vest type extrication device
11. Explain the rationale for utilising a vest type extrication device when moving the patient from a sitting to a supine position
12. Describe how to immobilise the patient using a vest type extrication device
13. Explain the reasons for removal of a helmet following trauma
14. Describe the unique characteristics of sports helmets
15. Explain the preferred methods to remove a helmet
16. Outline the pre-hospital emergency assessment findings and care management for the patient with a suspected spinal injury
17. Describe the history, signs and symptoms of primary and secondary brain injury
18. List the complications of head injuries
19. Outline the pre-hospital emergency assessment findings and care management for the patient with a head injury
20. Outline the pre-hospital emergency assessment findings and care management for the patient with maxillo-facial injuries
21. State the signs and symptoms of neurogenic shock
22. The principles underlying the PHECC CPG spinal immobilisation decision tree
23. Describe the assessment for concussion using ‘Maddocks’ questions

Attitudinal Objectives

At the completion of this section, the student will be able to:

1. Demonstrate effective management of the patient with an injury to the head and spine who requires pre-hospital emergency care
2. Communicate effectively with the patient and family members and friends

Skills Objectives

At the completion of this section, the student will be able to:

1. Demonstrate the use of approved immobilisation/ extrication/ lifting devices[3]
2. Demonstrate helmet removal
3. Demonstrate the pre-hospital emergency assessment and care management for the patient with suspected spinal injuries
4. Demonstrate the pre-hospital emergency assessment and care management for the patient with head injuries
5. Demonstrate the pre-hospital emergency assessment and care management for the patient with maxillo-facial injuries
6. Demonstrate appropriate techniques to apply the spinal injury decision tree
7. Demonstrate the pre-hospital emergency assessment and care management for the patient with concussion

[3] Approved devices as per the PHECC CPGs

Pregnancy and Pre-Delivery Emergencies

At the completion of this module, the student will be able to describe the physiology of pregnancy. The student will, as a result, be able to assess and mange the care to a pregnant woman for both pregnancy and non-pregnancy related illness and for pre-delivery emergency care in an out-of-hospital setting in accordance with appropriate CPG(s) and policy/protocols.

Knowledge Objectives

At the completion of this section, the student will be able to:

1. Explain the physiology of a normal pregnancy
2. Outline the landmark time frames during pregnancy
3. Define the terms: foetus, placenta, umbilical cord, amniotic sac and perineum
4. Describe the assessment of a pregnant patient who requires pre-hospital emergency care for something other than pregnancy related condition
5. List the common medical conditions that mimic labour
6. Assess pain levels using PQRST to ad a differential diagnosis
7. Describe the special considerations for a pregnant patient in cardiac arrest
8. Outline the psychological care of a pregnant patient
9. Outline the pre-hospital emergency care assessment findings and care management for the pre-delivery emergencies: ante-partum haemorrhage, ectopic pregnancy, pre-eclampsia and eclampsia

Attitudinal Objectives

At the completion of this section, the student will be able to:

1. Explain the rationale for attending to the feelings of the patient requesting pre-hospital emergency care during pregnancy
2. Communicate effectively with patients with pre-delivery emergencies

Skills Objectives

At the completion of this section, the student will be able to:

1. Demonstrate the assessment and care management for the pregnant patient who has requested pre-hospital emergency care for a pregnancy related condition
2. Demonstrate the special considerations when assessing and caring for the pregnant patient who has requested pre-hospital emergency care for a non pregnancy related condition

Childbirth and Neonatal Resuscitation

At the completion of this module, the student will be able to assess manage the care of a pregnant woman during labour and delivery and also be able to perform neonatal resuscitation in an out-of-hospital setting, in accordance with appropriate CPG(s).

Knowledge Objectives

At the completion of this section, the student will be able to:

1. State the indications of an imminent delivery
2. Describe the three stages of labour
3. Describe the assessment of the woman in labour including taking a SAMPLE history
4. Explain the pre-hospital emergency care preparation of the mother pre-delivery
5. Describe the pre-hospital emergency care management of each stage of labour
6. List the steps to assist with the delivery
7. Describe the care of the baby as the head appears
8. Describe how and when to cut the umbilical cord
9. Discuss the pre-hospital emergency care delivery of the placenta
10. Outline the pre-hospital emergency care management for the mother post-delivery
11. Describe the pre-hospital emergency care management for the following abnormal deliveries: cord complications, limb presentation, breech birth
12. List the special considerations for multiple births and a preterm birth
13. Explain the significance of the presence of meconium
14. Define post-partum haemorrhage
15. Outline the pre-hospital emergency assessment findings and care management for the mother with post-partum haemorrhage
16. Explain the indications for performing external massage of the uterus
17. Describe the pre-hospital emergency care assessment findings and care management for the newly born including those requiring resuscitation
18. Explain the implications of treating two patients (mother and baby)

Attitudinal Objectives

At the completion of this section, the student will be able to:

1. Explain the rationale for attending to the feelings of the patient in need of pre-hospital emergency care during childbirth
2. Demonstrate a caring professional attitude towards patients during childbirth who request pre-hospital emergency care services
3. Communicate effectively with mothers during delivery as well as with family members and friends of the patient

Skills Objectives

At the completion of this section, the student will be able to:

1. Demonstrate the pre-hospital emergency care management for the mother and child during each stage of the normal delivery
2. Demonstrate the pre-hospital emergency assessment and care management for the following abnormal deliveries: cord complications, limb presentation and breech birth
3. Demonstrate the pre-hospital emergency care management for the mother post-delivery care
4. Demonstrate the pre-hospital emergency assessment and care management for the mother with post-partum haemorrhage
5. Demonstrate the care of the newly born including those requiring resuscitation

Paediatrics

At the completion of this module, the student will be able to identify common paediatric emergencies and as a result be able to assess and manage the care of a pre-hospital paediatric patient in an out-of-hospital setting in accordance with CPG(s).

Knowledge Objectives

At the completion of this section, the student will be able to:

1. Identify the growth and developmental characteristics for the following age groups:
    - Infants
    - Toddlers
    - Pre-school
    - School age
    - Adolescent
2. Outline the pre-hospital emergency assessment of each of the above age groups
3. Differentiate between the injury patterns in infants and children from the group
4. Outline the elements of the Paediatric Assessment Triangle
5. List the signs and symptoms of measles, chicken pox and meningitis
6. Explain the significance of a purpuric rash
7. List the signs and symptoms of croup, stridor, pertussis, epiglottitis, asthma and inadequate respirations, respiratory failure in infants and children
8. Differentiate between upper and lower airway obstruction in the infant and child
9. Differentiate between upper and lower airway disease in the infant and child
10. Outline the pre-hospital emergency assessment findings and care management for the infant and child with inadequate respirations and respiratory arrest
11. Describe the pre-hospital emergency assessment findings and care management for the infant and child with hypovolaemic and septic shock
12. Describe the pre-hospital emergency assessment findings and care management for the infant and child with a pyrexia
13. State the primary causes of cardiac arrest in infants and children
14. List common causes of seizures in infants and children
15. Describe the pre-hospital emergency assessment findings and care management for the infant and child with seizures
16. Describe the pre-hospital emergency assessment findings and care management for the infant and child with known or suspected poisoning
17. Describe the pre-hospital emergency assessment findings and care management for the infant and child with an allergic reaction and anaphylaxis
18. Discuss the pre-hospital emergency assessment findings and care management for the infant and child with trauma including burns management, external haemorrhage and spinal immobilisation
19. Describe the pre-hospital emergency assessment findings and care management for the infant and child with a glycaemic emergency

20. List the indicators of possible child abuse or neglect
21. Describe the medico-legal responsibilities in suspected child abuse
22. Recognise the need for Critical Incident Stress support following a serious illness or injury to an infant or child
23. Outline the pre-hospital emergency assessment findings and care management for the paediatric patient with pain including use of the Wong Baker Faces Pain Rating Scale
24. Discuss relevant aspects of Sudden Infant Death Syndrome (SIDS)
25. Discuss the benefits and limitations of weight calculation using the Broselow tape

Attitudinal Objectives

At the completion of this section, the student will be able to:

1. Relate to the feelings of the family when dealing with an ill or injured infant or child
2. Accept and manage the practitioner's own emotional response when caring for infants or children
3. Display a caring attitude towards the infants and children with illness or injury who require pre-hospital emergency services
4. Communicate effectively with infants and children will an illness or injury, as well as with family members and friends of the patient

Skills Objectives

At the completion of this section, the student will be able to:

1. Demonstrate the pre-hospital emergency assessment of the infant and child
2. Demonstrate the pre-hospital emergency assessment and care management for the infant and child with respiratory distress and respiratory arrest
3. Demonstrate the pre-hospital emergency assessment and care management for the infant and child with hypovolaemic or septic shock
4. Demonstrate the pre-hospital emergency assessment and care management for the infant and child with a pyrexia
5. Demonstrate the pre-hospital emergency assessment and care management for the infant and child with seizures
6. Demonstrate the pre-hospital emergency assessment and care management for the infant and child with a known or suspected poisoning
7. Demonstrate the pre-hospital emergency assessment and care management for the infant and child with an allergic reaction and anaphylaxis
8. Demonstrate the pre-hospital emergency assessment and care management for the infant and child with trauma
9. Demonstrate the pre-hospital emergency assessment and care management for the infant and child with hypoglycaemia

10. Demonstrate the pre-hospital emergency assessment and care management for the infant and child who is suspected as suffering from abuse or neglect
11. Calculate the weight of an infant and child using the Broselow tape

Learning Outcome 1 – Domain 3

Provide the appropriate standard of patient care for interfacility transfers and pre-hospital emergency care services	Appropriate on-going maintenance of the patient record and utilisation of correct patient handover procedures

Health Information Management

At the completion of this module, the student will be able to discuss the impact of the Health Information Standard in relation to their professional practice. In addition the student will be able to include all the required information on a patient care report (PCR) in accordance with the PHECC Records Management Guidelines and the Patient Care Report Guidebook.

Knowledge Objectives

At the completion of this section, the student will be able to:

1. How accurate and timely information is central to a safe and efficient health care
2. How a completed patient care report is an integral part of pre-hospital emergency care
3. The standards of documentation completion
4. The information required to complete each section of the PCR and the format for entry of the information
5. How the PCR contributes to future national planning of pre-hospital services
6. The legal aspects of the PCR
7. Access rights of the patient to the PCR

Attitudinal Objectives

At the completion of this section, the student will be able to:

1. The rationale for appropriately capturing patient information
2. The importance of records management in order to promote best practice
3. How the PCR contributes to healthcare quality improvement and clinical audit.
4. The importance of relevant legislation with regard to patient documentation

Skills Objectives

At the completion of this section, the student will be able to:

1. Collecting, analysing and organising information to complete a PCR for a given patient scenario
2. The practices for storage of, retention of and access to the PCR in paper and electronic format
3. Examining their own clinical practice using completed PCRs

Communication

At the completion of this module, the student will be able to demonstrate the use of effective and appropriate communication skills in their professional practice.

Knowledge Objectives

At the completion of this section, the student will be able to:

1. Describe the golden rules of patient interaction (ref- Emergency Care and Transportation of the sick and injured By AAOS; 9th Edition)
2. Describe how to adapt verbal and non-verbal communication for visually impaired patients
3. Describe the principal barriers to effective patient and team communication
4. State the personal qualities that make an effective therapeutic communicator
5. Define each of the elements of the communication process
6. Define the term communication and describe each of the three types of communication
7. Describe how to adapt communication for auditory impaired patients
8. Describe the visual and auditory phenomena concerning perception and interpretation of communications
9. State the importance and techniques of active listening to maximise therapeutic communication
10. Differentiate between open and closed questions and outline how each may be used effectively during history taking

Attitudinal Objectives

At the completion of this section, the student will be able to:

1. Show a caring professional attitude when communicating with a simulated patient, next of kin and bystanders
2. Demonstrate appropriate non-verbal communication to convey a caring attitude
3. Demonstrate confidence and professionalism in gaining cooperation from others
4. Demonstrate a professional non-judgemental attitude and demeanour throughout the communication process
5. Value the patient's negative responses and provide clear, unbiased, equable information for informed decision making to take place
6. Demonstrate a courteous approach toward the patient, their family and bystanders, to encourage critical information to be passed multi-directionally
7. Demonstrate a balanced approach to defuse tension and support appropriate communication techniques and rapport

Skills Objectives

At the completion of this section, the student will be able to:

1. Demonstrate the use of open questioning technique and obtain important and relevant clinical information
2. Demonstrate effective communication with non-English speaking patients
3. Demonstrate a sequential and systematic verbal report of patient information both vertically and horizontally to ensure safe practice and maintain efficiency and continuity of care
4. Demonstrate application of each communication skill throughout a range of patient age categories
5. Using the principles of the feedback loop, demonstrate measurement and accurate interpretation of communication results, against a prescribed act, for each of the three types of communication
6. Demonstrate a level of assertiveness that maintains professional management of the situation, whilst ensuring the principles of “Team” are maintained

Learning Outcome 2 – Domain 1

Safely and appropriately access, retrieve and transport patients

Basic Patient Care

At the completion of this module, the student will be able to describe the principles of transporting patients and maintaining care for patients whilst in transit in accordance with the appropriate CPG(s) and scope of practice for a paramedic.

Knowledge Objectives

At the completion of this section, the student will be able to:

1. Outline the special considerations for a long distance journey
2. Outline the special considerations for transporting out- patients
3. List and discuss several normal changes in old age which may impact on patient care during transport
4. Outline the common medical conditions in the elderly
5. Discuss common injury patterns in the elderly
6. Describe the effects of reduced mobility on the older patient
7. Outline indicators of suspected elder abuse
8. Outline the special considerations for transporting infants in incubators
9. Outline the special considerations for transporting the elderly, mentally and physically challenged population in relation to their needs

Attitudinal Objectives

At the completion of this section, the student will be able to:

1. Understand the communication needs of the elderly
2. Explain the need to maintain patient mobility as far as possible
3. Explain the importance of encouraging a patient's independence
4. Demonstrate the importance of working as a team when lifting and moving patients

Skills Objective

At the completion of this section, the student will be able to:

1. Demonstrate attending to patient toilet and hygiene requirements during a patient transport
2. Demonstrate a familiarity with common portable devices used in connection with the transportation of patients. This list may include infusion pumps, home nebulisers and oxygen, B/P monitors, artificial limbs, walking aids etc.

3. Demonstrate assisting a patient with impaired mobility to ascend and descend steps
4. Demonstrate, using the principles of lifting, patient lifts, carries and drags appropriate to pre-hospital emergency care practice
5. Demonstrate both pushing and pulling an object using safety guidelines
6. Demonstrate, while working in a team, the transfer, securing and transport of a patient onto each of the approved carrying/ lifting devices[4], using the principles of lifting in the pre-hospital emergency care environment
7. Demonstrate loading and unloading a vehicle using an ambulance trolley stretcher
8. Demonstrate loading a vehicle using an ambulance chair
9. Demonstrate approved nursing positions on an ambulance trolley stretcher[5]
10. Demonstrate age appropriate moving and handling techniques

[4] *Approved devices as per the PHECC CPGs.*
[5] *Approved nursing positions as per the PHECC CPGs.*

Scene Assessment

At the completion of this module, the student will be able to safely assess the scene of an incident and take appropriate measures to protect themselves, their colleagues and the patient.

Knowledge Objectives

At the completion of this section, the student will be able to:

1. Discuss the components of scene assessment
2. Describe common hazards found at the scene of a trauma and a medical patient
3. List the determinants of scene safety
4. Discuss the role and responsibilities of the paramedic with regard to the safety of others at the scene of an incident including the patient, emergency crew and bystanders
5. Define: hazards, potential hazards, risk and risk management
6. Describe the risk management principles of hazard identification, assessment of risk, hierarchy of control and documentation of findings
7. Discuss common mechanisms of injury/nature of illness and how this may impact upon their management at the scene
8. Discuss the reasons for identifying the total number of patients at the scene
9. Explain the reasons for identifying the need for additional help or assistance
10. Explain the rationale for crew members to evaluate scene safety prior to entering
11. Explain how patient situations affect the evaluation of mechanism of injury or nature of illness
12. Explain how information from the scene contributes to injury prediction and the role of the paramedic in reporting observations

Attitudinal Objectives

At the completion of this section, the student will be able to:

1. Explain the meaning of team work when multidisciplinary pre-hospital emergency services are at an incident

Skills Objectives

At the completion of this section, the student will be able to:

1. Demonstrate the assessment of an accident / pre-hospital scene for scene safety and identify potential hazards, risks and controls

Gaining Access to the Patient at the Scene

At the completion of this module, the student will be able to demonstrate the safe extrication of a patient from an accident scene in accordance with the appropriate established protocols.

Knowledge Objectives

At the completion of this section, the student will be able to:

1. Describe the purpose of extrication
2. Identify the patient who will require rapid extrication
3. Explain the rationale for utilising rapid extrication approaches only when they indeed will make the difference between life and death
4. Discuss the role of the paramedic in extrication
5. List the Personal Protective Equipment (PPE) required for paramedics during extrication
6. Define the fundamental components of extrication
7. State the steps that should be taken to protect the patient during extrication
8. List the steps in rapid extrication
9. Evaluate various methods of gaining access to the patient
10. Differentiate between simple and complex access

Attitudinal Objectives

At the completion of this section, the student will be able to:

1. Participate as part of a team to ensure a safe and efficient extrication

Skills Objectives

At the completion of this section, the student will be able to:

1. In a simulated light rescue scenario demonstrate the use of approved rescue equipment[6]
2. Demonstrate the extrication of a simulated patient from a car

[6] Approved rescue equipment as per the PHECC CPGs

Ambulance Operations

At the completion of this module, the student will be able to outline the relevant procedures involved in preparation, despatch and transit both to and from an incident.

Knowledge Objectives

At the completion of this section, the student will be able to:

1. List the functions of a Command & Control Centre
2. State the role and responsibility of the EMC (Call taker and dispatcher)
3. State the benefits of pre-arrival instructions
4. List the functions of a Medical Priority Dispatch System (MPDS)
5. List the categories of equipment for emergency ambulances and state at least one use for each category at an incident
6. List the time phases of an ambulance call in response to an incident
7. Describe the considerations that should be given to a request for a Garda escort for an ambulance
8. Explain the PHECC EMS Priority Dispatch classifications and discuss the appropriate response to each one
9. Outline the considerations when deciding on the appropriate receiving healthcare facility
10. Outline the special considerations for a long distance journey
11. Outline the special considerations for transporting out- patients
12. Outline the special considerations for mentally and physically challenged population in relation to their needs
13. Outline the steps necessary to find an address on a map

Attitudinal Objectives

At the completion of this section, the student will be able to:

1. Explain the rationale for having the ambulance prepared for response
2. Discuss the “symptom iceberg” and understand why people frequently wait for significant time prior to calling for help

Skills Objectives

At the completion of this section, the student will be able to:

1. Given a location/ patients address indicate the coordinates on a map

Learning Outcome 3 – Domain 1

Adopt a professional approach to their practice	Retaining a professional manner and method in the performance of their duties

Professional Practice & Medico-Legal Issues Concerning the Paramedic

At the completion of this module, the student will be able to outline their professional code of practice and ethics and describe the ethical and legal framework in relation to patient care.

Knowledge Objectives

At the completion of this section, the student will be able to:

1. Outline the pertinent sections of current relevant legislation, highlighting their impact on a paramedic's professional practice.
2. Explain the professional duties of being a registered pre-hospital emergency care practitioner
3. Describe how the PHECC CPGs define a paramedic's scope of practice
4. Discuss the PHECC Code of professional conduct and ethics of pre-hospital emergency care practitioners.
5. Explain the principles underlying PHECC's Fitness to Practice.
6. List the four principles of healthcare ethics.
7. Explain the PHECC registered practitioner's duty of care to patients and the public.
8. Define abandonment, negligence and battery and their implications for the paramedic.
9. Define informed and implied consent and discuss the methods of obtaining consent.
10. Discuss the legal and ethical position concerning obtaining consent from children and adolescents.
11. Discuss the responsibilities of the paramedic in cases of patient refusal of treatment and or transport.
12. Compare the paramedic's role with other registered practitioners and other non ambulance personnel at the scene of an incident
13. Explain the importance, necessity and legality of patient confidentiality.
14. Discuss the grounds for sharing patients' health information with other health professionals.
15. Discuss disclosure of patients' health records for purposes of litigation.
16. List the actions that a paramedic should take to assist in the preservation of a crime scene.
17. State the emergency care conditions that require notification of the *Gardaí.*
18. State the procedure following a death in a public place or in the home.
19. Outline the procedure authorising forcible entry into private premises.
20. Outline the precautions to take during and after searching the patient for identification.
21. Explain the principles of access, equity and equality in healthcare.

Attitudinal Objectives

At the completion of this section, the student will be able to:

1. Explain why it is inappropriate to judge the patient based on a cultural, gender, age or socioeconomic model and to vary the standard of care rendered as a result of that judgement.
2. Exhibit the professional responsibilities of a paramedic in accordance with the standards of the PHECC Register.

Skills Objectives

At the completion of this section, the student will be able to:

1. Demonstrate appropriate verbal communication to satisfy medico-legal consent criteria when seeking consent from a patient for treatment

Patient Safety and Quality Assurance

At the completion of this module, the student will be able to examine their practice and their practice environment in terms of improving the quality of clinical care.

Knowledge Objectives

At the completion of this section, the student will be able to:

1. Discuss situations associated with an increased risk of error
    - Unfamiliar with the task
    - Inexperience
    - Shortage of time
    - Inadequate checking
    - Poor procedures
2. Discuss individual factors that predispose to errors
    - Limited memory capacity
    - Fatigue
    - Stress, hunger, illness
    - Language and cultural factors
    - Hazardous attitudes
3. Outline the harm caused by healthcare errors and systems failures
4. Outline the clinical audit cycle

Attitudinal Objectives

At the completion of this section, the student will be able to:

1. Participate in adverse events investigations
2. Communicate openly when things go wrong

Skills Objectives

At the completion of this section, the student will be able to:

1. Demonstrate engagement in incident reporting (organisation specific)
2. Write the objectives for a small scale audit project

References:

1. Department of Health and Children, Building a Culture of Patient safety, 2007 (Available from http://www.dohc.ie/publications/building_culture_patient_safety.html; accessed October 2010).
2. World Health Organisation, Patient safety curriculum Guide for Medical schools, 2009 (Available from http://www.who.int/patientsafety/education/en/; accessed October 2010).

Learning Outcome 3 – Domain 2

Adopt a professional approach to practice their practice	Basing their professional practice on a solid foundation of both basic and clinical sciences

Clinical Anatomy and Physiology

At the completion of this module the student will be able to outline the structure and function of the body.

Knowledge Objectives

At the completion of this section, the student will be able to:

The cells, tissues and organisation of life

1. Describe the structure and functions of the cell
2. Describe the structure and function of epithelial, connective, muscle and nervous tissue
3. Outline the structure and function of mucous, serous and synovial membranes

The respiratory system

1. Describe the position and structure of the anatomical parts or organs of the respiratory system
2. Relate the structure of the parts or organs to the functions of the respiratory system
3. Outline the physiology of breathing, differentiating between external and internal respiration using the concept of gas diffusion
4. Explain the pulmonary and systemic gaseous exchange
5. Define and state the normal respiratory values of:
    - Tidal volume
    - Residual volume
    - Vital capacity
    - Total lung capacity
    - Respiratory rate
    - Minute volume
6. Outline the mechanism of breathing
7. Describe the pulmonary blood and nerve supply

The cardiovascular system

1. Describe the structure and functions of arteries, veins and capillaries
2. Discuss vasodilatation and vasoconstriction of blood vessels
3. Describe the structure of the heart and its position within the thorax
4. Describe the coronary circulation
5. Outline the circulation of blood through the heart and major blood vessels of the body

6. Describe the electrical conducting system of the heart
7. Describe the cardiac cycle
8. List the factors affecting cardiac output in relation to stroke volume, and heart rate
9. Define pulse, blood pressure and the factors affecting variations in blood pressure and pulse
10. Outline the pulmonary circulation, the systemic circulation and the portal circulation

The musculoskeletal system

1. On a diagram indicate the position of internal organs in relation to surface anatomy
2. Name the main muscles in the face and neck, back, abdominal wall, pelvic floor and limbs
3. Outline the main functions of muscles in the face and neck, back, abdominal wall, pelvic floor and limbs
4. List 5 types of bone and give examples of each
5. List the functions of bone
6. Identify the bones of the skull
7. Describe the structure of the vertebral column
8. Explain the movements of the vertebral column
9. Identify the bones that form the thoracic cage
10. Identify the bones of the appendicular skeleton
11. List the types of joints and give examples of each
12. Describe the structure and movement of the shoulder, elbow, wrist, hip, knee and ankle joints
13. Describe the functions of muscles, ligaments and tendons

The digestive system

1. Describe the position and structure of the anatomical parts or organs of the digestive system
2. Outline the blood and nerve supply to the digestive system
3. Define peristalsis
4. Describe the digestive functions of the stomach
5. Describe the digestive functions of the small intestine, liver and pancreas

The endocrine system

1. List the major endocrine glands of the body and identify the hormones associated with each
2. Describe the actions of insulin and glucagon

The blood

1. Describe the structure, function and formation of red and white blood cells
2. Outline the role of platelets in clotting
3. Outline the chemical composition of blood
4. State the functions of blood

The skin

1. Describe the structure of the skin
2. List the functions of skin

The special senses

1. Describe the gross structure of the eye
2. Describe the gross structure of the ear
3. Describe the physiology of sight
4. Describe the physiology of hearing

The nervous system

1. Discuss the basic structure of a neuron
2. Differentiate between the central, peripheral and autonomic nervous systems
3. State the functions of sensory and motor nerves
4. Describe the structure of the meninges
5. Outline the flow of cerebrospinal fluid (CSF) in the brain and spinal cord
6. List the functions of CSF
7. Describe the blood supply to and from the brain
8. Describe the position of the cerebrum
9. Describe the position of the cerebellum
10. Outline the main functions of the cerebrum
11. Outline the main functions of the cerebellum
12. List the 5 parts of the brain stem
13. Outline the position and function of the midbrain, pons, medulla oblongata and reticular activating system
14. Describe the gross structure of the spinal cord
15. Differentiate between white and grey matter
16. State the functions of the motor and sensory nerve tracts in the spinal cord
17. Explain the events of a simple reflex arc
18. List the origins of the paired spinal nerves
19. List the areas innervated by the thoracic nerves
20. Differentiate between the sympathetic and parasympathetic nervous system
21. Compare and contrast the effects of stimulation of the sympathetic and parasympathetic nervous systems on body systems
22. State the origin and innervation of the phrenic nerve

The urinary system

1. Describe the position and structure of the anatomical parts or organs of the urinary system
2. Describe the blood and nerve supply to the urinary system
3. Explain the role of kidneys in blood pressure control

The female reproductive system

1. On a diagram, label the parts of the female reproductive system
2. Explain the position, structure and function of the vagina, uterus and
3. Fallopian tubes

Attitudinal Objectives

No attitudinal objectives identified

Skills Objectives

No skills objectives identified

Pharmacology

At the completion of this module, the student will be able to safely administer the appropriate medication for paramedics and correctly monitor medicated patients in accordance with established protocols/policy.

Knowledge Objectives

At the completion of this section, the student will be able to:

1. Define the terms pharmacokinetics and pharmacodynamics
2. Explain the process of drug absorption
3. Explain the factors that may influence drug absorption, distribution and elimination
4. List the medications which the paramedic may administer including special authorisation[7]
5. Outline the pharmacology of all paramedic medications as per the PHECC medication formulary
6. List the dose, route of administration, indications, contra-indications and side effects of the approved medications for use by paramedics
7. Discuss the paediatric weight calculation formula included in the PHECC medication formulary
8. Differentiate between trade and generic medication names
9. Differentiate between the dose in weight and the volume of a solution to administer
10. List the medications that are weight based and age based for doses
11. List the formula to calculate a paediatric weight from known age
12. List the pre-administration checks to follow when administering medication
13. Explain the importance of establishing if the patient has any medication allergies or is taking complementary therapies e.g. homeopathy
14. Explain the dangers associated with inappropriate administration of medication
15. List the '6 rights' of medication administration
16. Outline the legal framework and system of best practice that empowers Paramedics to administer medications

Attitudinal Objectives

At the completion of this section, the student will be able to:

1. Explain the rationale for the administration of medication
2. Explain the rationale for near miss incident or medication error reporting

[7] *Approved medication as per the PHECC CPGs*

Skills Objectives

At the completion of this section, the student will be able to:

1. Demonstrate the pre-administration checks to be undertaken prior to medication administration
2. Calculate age related doses and the volume of a specific solution for paediatric patients
3. Demonstrate the administration of all approved medication for paramedic use
4. Demonstrate the documentation of medication administration on the Patient Care Report
5. Demonstrate the assessment and documentation of the patient's response to medication

Infection Prevention and Control

At the completion of this module, the student will be able to demonstrate the principles of infection prevention and control whilst carrying out their professional duties in accordance with established policy/ protocols

Knowledge Objectives

At the completion of this section, the student will be able to:

1. Define the terms: chain of infection, source/ routes of infection, means of transmission, susceptible host, contacts, fomites, vector, incubation period, quarantine, endemic, epidemic and pandemic
2. Define the terms: pathogens, causative agent, local infection, systemic infection and nosocomial infection
3. List the source/ routes of transmission
4. Outline standard infection control measures and how they protect people
5. Outline transmission based precautions
6. List ambulance equipment that is designated single use only
7. List ambulance equipment that must be cleaned, disinfected and sterilised
8. Describe the steps the paramedic should take for personal protection from airborne and blood borne pathogens
9. List the personal protective equipment necessary for each of the following situations:

    a. Exposure to blood borne pathogens
    b. Exposure to airborne pathogens
    c. Exposure to biological agents
    d. Exposure to ectoparasites
    e. Exposure to antibiotic resistant bacteria (e.g. Methicillin Resistant Staphylococcus Aureus (MRSA))
10. Describe the safe use and disposal of sharps
11. Describe the safe use and disposal of safety engineered sharps/needle-less systems
12. List the steps to be taken in the event of an inoculation injury; percutaneous and mucocutaneous types
13. List the steps of spills management for blood and body fluids
14. Distinguish between healthcare risk and non-healthcare risk waste
15. List the steps to manage linen soiled with blood or body fluids
16. Distinguish between the terms cleaning, disinfecting and sterilising

17. Distinguish between the different cleaning agents and their application
18. Describe how to clean and disinfect an ambulance and ambulance equipment following patient care
19. State the importance of vaccinations in protecting personal health
20. State the role of post exposure prophylaxis and the time frame required.

Attitudinal Objectives

At the completion of this section, the student will be able to:

1. Demonstrate a professional caring attitude towards patients irrespective of infective status
2. Communicate in an appropriate professional manner with other healthcare professional when transferring care of the patient with a known infectious condition
3. Adopt standard infection control precautions as fundamental to patient care

Skills Objectives

At the completion of this section, the student will be able to:

1. Demonstrate effective hand washing technique
2. Demonstrate glove use and disposal
3. Demonstrate the management of spills for blood or body fluids
4. Demonstrate how to manage an inoculation injury, percutaneous and mucocutaneous types
5. Demonstrate standard and transmission based infection control precautions
6. Demonstrate the disposal of healthcare risk and non-healthcare risk waste including sharps and soiled linen
7. Demonstrate the cleaning and disinfection of an ambulance and ambulance equipment

Intravenous/Intraosseous Therapy

At the completion of this module, the student will be able to assist with the administration and correctly monitor intravenous and intraosseous therapy on a patient in an out-of-hospital setting as per authorisation on CPGs.

Knowledge Objectives

At the completion of this section, the student will be able to:

1. Describe the physiology of body fluids
2. Outline the general indications of intravenous/intraosseous fluid therapy
3. List the equipment required and the procedure involved with insertion of the intravenous cannula and the intraosseous access
4. List the equipment required to set up for intravenous/intraosseous fluid administration
5. Describe the pre-hospital considerations that may impact on fluid administration during transport and outline basic remedial actions
6. List the common complications of intravenous/ intraosseous therapy outline basic remedial actions
7. Describe the application of an intermittent vascular access cap (bung)
8. List the special considerations for vascular access in the trauma patient
9. List special considerations for vascular access in the paediatric patient
10. List the sign and symptoms of fluid overload
11. Explain the benefits of low volume resuscitation for trauma patients other than head injuries

Attitudinal Objectives

At the completion of this section, the student will be able to:

1. Demonstrate a professional caring attitude for the patient who requires a cannula or an intravenous infusion
2. Appreciate the apprehension patients experience about receiving an injection

Skills Objectives

At the completion of this section, the student will be able to:

1. Demonstrate the maintenance of a fluid regime including the correction of some basic administration complications
2. Identify an intravenous cannula that has tissued
3. Demonstrate commencing a fluid regime including setting the giving set's flow rate for the infusion and securing the giving set
4. Demonstrate the discontinuation of a fluid regime including application of a bung
5. Demonstrate securing a intravenous cannula and an intraosseous access

Intramuscular Injection

At the completion of this module, the student will be able to correctly and safely administer an intramuscular injection to a patient in an out-of-hospital setting.

Knowledge Objectives

At the completion of this section, the student will be able to:

1. Identify the preferred sites for intramuscular injection
2. List the maximum volume that should be injected in each site
3. Outline the general indications of intramuscular medication administration
4. List the equipment required and describe the procedure of drawing up medication from both glass and plastic ampoules
5. List the common complications of intramuscular injection as well as some basic preventative steps
6. List the special considerations for intramuscular injections for the paediatric patient

Attitudinal Objectives

At the completion of this section, the student will be able to:

1. Demonstrate a caring professional for the patient who requires an intramuscular injection
2. Appreciate the apprehension that some patients experience about receiving an injection

Skills Objectives

At the completion of this section, the student will be able to:

1. Demonstrate the preparation of an intramuscular injection from liquid and powder medications
2. Demonstrate the administration of an intramuscular injection

Learning Outcome 3 – Domain 3

Adopt a professional approach to practice their practice	Utilising best practice as prescribed by standard pre-hospital emergency care operational procedures and CPGs

Radio Communications

At the completion of this module, the student will be able to correctly operate a radio communication device in accordance with established protocols.

Knowledge Objectives

At the completion of this section, the student will be able to:

1. Differentiate between radio and telephone communications
2. Differentiate between VHF and UHF
3. Describe the components of a typical ambulance service radio net
4. Identify factors that lead to poor radio transmission
5. Identify the importance of radio call signs to ensure effective radio communication
6. List the mandatory radio calls required when responding to an incident:
   - Mobile to scene
   - Arrival at scene
   - Depart scene
   - At destination (hospital)
   - Clear at destination
   - Arrive at station
7. List the phonetic alphabet
8. List and explain the acceptable radio shorthand words
9. List the principles of good voice procedure when transmitting a radio message
10. List the steps required for transmitting a long radio message
11. List the components of an ASHICE message (Age, Sex, History, Incident, Clinical impression & Estimated time of arrival; ASHICE)

Attitudinal Objectives

At the completion of this section, the student will be able to:

1. Explain the rationale for completing a radio check at the commencement of duty

Skills Objectives

At the completion of this section, the student will be able to:

1. Operate a mobile radio set
2. Operate a hand held radio set
3. Demonstrate an organised, concise radio transmission
4. Demonstrate a radio transmission utilising the phonetic alphabet
5. Demonstrate a radio transmission of a long message
6. Demonstrate a radio report on a simulated patient using ASHICE

Hazardous Material Incident

At the completion of this module, the student will be able to demonstrate a safe approach, in accordance with established protocols, when dealing with a hazardous material incident.

Knowledge Objectives

At the completion of this section, the student will be able to:

1. Outline the paramedics role during an incident involving hazardous materials
2. List the safety precautions required to ensure paramedic and crew safety at a hazardous materials incident
3. Explain the methods for preventing contamination of self, equipment and facilities
4. List the safety precautions required to ensure the safety of bystanders at a hazardous materials incident
5. List the nine classes of hazardous materials
6. Identify the component parts of an ADR hazard warning panel
7. Identify the component parts of a Hazchem warning panel
8. Identify the dangers associated with complacency when dealing with hazardous chemicals
9. Outline the importance of decontamination of patients prior to transport

Attitudinal Objectives

At the completion of this section, the student will be able to:

1. Explain the role and responsibility of the Gardaí and Fire Service in ensuring scene safety and access to patients
2. Support a patient physically and emotionally through a decontamination process

Skills Objectives

At the completion of this section, the student will be able to:

1. Identify the UN number and the type of hazard involved, given a hazardous warning panel
2. Given a scenario with a potential hazardous exposure, the student will demonstrate the use of appropriate personal protective equipment
3. At the completion of the scenario, the student will demonstrate the proper removal and disposal of the protective garments

Major Emergency

At the completion of this module, the student will be able to perform their duties as a paramedic effectively in conjunction with other relevant services at a major emergency incident.

Knowledge Objectives

At the completion of this section, the student will be able to:

1. Define Major Emergency[8] and identify the factors to be considered before one is declared
2. Discuss Major Emergency in relation to: Natural, Manmade, Simple, Compound, Compensated and Uncompensated incidents
3. List the roles of the Health Service Executive during a Major Emergency
4. List the roles of the Local Authority/ Fire Services during a Major Emergency
5. List the roles of *An Garda Síochána* during a Major Emergency
6. Describe how the three Services, Health Service Executive, Local Authority/ Fire Services and An Garda Síochána operate under separate vertical command structures and liaise with each other at the operational, tactical and strategic areas during a Major Emergency
7. Describe the Strategic, Tactical and Operational levels in relation to Major Emergencies
8. Outline the Health Service Executive command structure in relation to Strategic, Tactical and Operational levels
9. Discuss the seven key principles for a Major Emergency structured response: Command, Safety, Communications, Assessment, Triage, Treatment & Transport
10. Define triage in relation to a multiple casualty incident
11. List the components of triage sieve and state where on a Major Emergency site it is carried out
12. List the components of triage sort and state where on a Major Emergency site it is carried out
13. Sketch a schematic diagram of the patient through flow at a Major Emergency site identifying Operational and Tactical areas
14. List the roles of the first practitioners on scene at a Major Emergency differentiating between the communications and command roles
15. Identify the tabard worn by the Controller of Operations for each of the three principal response agencies
16. Differentiate between local, regional and national co-ordination for major emergencies
17. Discuss the concept of the lead agency
18. Identify the roles of the medical incident officer

[8] Major Emergency management as per PHECC CPGs

Attitudinal Objectives

At the completion of this section, the student will be able to:

1. Explain the concept of the most (help) for the most (patients)
2. Use the protocol and procedures in the "Framework for Major Emergency Management" document during a Major Emergency

Skills Objectives

At the completion of this section, the student will be able to:

1. Given a scenario of a Major Emergency compose a METHANE message
2. Given a simulated patient perform a triage sieve and label correctly
3. Given a simulated patient perform a triage sort and label correctly
4. Review the Major Emergency Plan from the student paramedic's local area
5. Given a scenario and location map, identify a location for
    - Casualty collection station
    - Ambulance parking point

Civil Disorder

At the completion of this module, the student will be able to perform their duties as a paramedic effectively in conjunction with other relevant services during civil disorder.

Knowledge Objectives

At the completion of this section, the student will be able to:

1. Identify the fundamental role of the Ambulance Service during civil disorder
2. List three types of civil disorder and explain the challenges posed for pre-hospital emergency care providers for each type
3. Outline why ambulance staff should be deployed behind Garda lines during civil disorder
4. Identify the safe procedure for parking and preparedness of ambulances during civil disorder
5. Outline the importance of Personal Protective Equipment (PPE) during civil disorder

Attitudinal Objectives

At the completion of this section, the student will be able to:

1. Explain the importance of neutrality for paramedics during a civil disorder

Skills Objectives

At the completion of this section, the student will be able to:

1. Demonstrate in pairs the use of carrying sheet to rapidly evacuate the patient in a simulated civil disorder

Treat and Refer

At the completion of this module, the student will be able to assess and make a sound clinical decision about patients who can be safely and reliably referred to another healthcare professional or self care with advice without transport to an emergency department being initiated.

Knowledge Objectives
At the completion of this section, the student will be able to:

1. Discuss treat and referral procedures for patients as per PHECC CPGs
2. Discuss the clinical pathway decision algorithm
3. List the principles of PHECC's treat and referral policy
4. List the clinical pathway decisions available to Practitioners
5. List the generic patient exclusion criteria prohibiting access to the treat and referral clinical pathways
6. List the elements of the written aftercare instructions for referred patients
7. List the components of the Healthcare Professionals feedback form that require completion by the pre-hospital emergency care Practitioner

Attitudinal Objectives
At the completion of this section, the student will be able to:

1. Identify the value added for the low acuity patient following the introduction of treat & referral clinical pathways

Skills Objectives
At the completion of this section, the student will be able to:

1. Following an assessment of a simulated patient, identify an appropriate treat and referral clinical pathway
2. Discuss the written after care instructions with a simulated patient following a decision to implement a treat & referral clinical pathway and determine their understanding of the instructions
3. Complete a Healthcare Professionals feedback form for a simulated patient following a decision to implement a treat & referral clinical pathway

Learning Outcome 4 – Domain 1

Demonstrate a commitment to continuous professional competence	Maintaining personal well-being and professional relationships with colleagues

The Well-Being of the Paramedic

At the completion of this module, the student will explain and demonstrate the importance of maintaining well-being, in particular manage a balance in personal lifestyle and stress-management

Knowledge Objectives

At the completion of this section, the student will be able to:

1. List the main responsibilities of the employer under Health and Safety Legislation
2. List the main responsibilities of the employee under Health and Safety Legislation
3. Explain the importance of emotional/ psychological wellbeing in a work context
4. Outline the importance of personal hygiene and physical fitness
5. List the ways in which people are affected by stress/ pressure
6. List commonly occurring work stressors in pre-hospital emergency services
7. Describe basic self-care procedures to help reduce/ alleviate stress
8. Describe the possible ways in which people are affected by exposure to critical incident/ traumatic stress
9. List the possible impact on the paramedic when faced with trauma, illness, death and dying
10. List the signs and symptoms of critical incident stress
11. Describe the role and operation of a critical incident stress management system
12. Outline the possible way in which a paramedic's family may be affected by his/her stress levels
13. Discuss the psychological impact of critical incidents/ trauma/ loss on bystanders or next of kin
14. Outline the steps in the paramedics approach to a bystander or next of kin confronted with trauma, illness, death and dying

Attitudinal Objectives

At the completion of this section, the student will be able to:

1. Explain the importance of being an advocate for the safety of self and others
2. Explain the importance of understanding the response to trauma, illness, death and dying and communicating effectively with the patient's family
3. Utilise the service's information material/ standard operating procedures for critical incident stress management

Skills Objectives

No skills objectives defined

Learning Outcome 4 – Domain 2

Demonstrate a commitment to continuous professional competency	Identify with the role of the paramedic

Continuum of Pre-Hospital Emergency Care

At the completion of this module, the student will be able describe the major components of the Irish healthcare system and be able to explain the role and responsibilities of a paramedic within this system.

Knowledge Objectives

At the completion of this section, the student will be able to:

1. Outline the services which make up the continuum of pre-hospital care
2. Differentiate the role and responsibility of the paramedic in this continuum of care as distinct from other pre-hospital care practitioners/responders
3. Define medical advice/direction and discuss how it is used to enhance patient care in the pre-hospital setting
4. Outline the structures of the Health Service Executive
5. Outline the structures of the National Ambulance Service
6. List the role and functions of the Pre-Hospital Emergency Care Council
7. List the various methods used to access pre-hospital emergency care
8. State the impact of Ireland's increasing population on health demographics
9. Outline how the current mortality and morbidity figures for the state will impact on the role of the pre-hospital emergency care practitioner

Attitudinal Objectives

At the completion of this section, the student will be able to:

1. Explain the rationale for maintaining a professional appearance when on duty or when responding to calls
2. Value a commitment to access, equity and equality principles of healthcare

Skills Objective

No skills objectives identified

Manage Personal Work Priorities and Professional Development

At the completion of this module, the student will be able to assemble their own personal development plans to assist with continuous professional competency requirements.

Knowledge Objectives
At the completion of this section, the student will be able to:

1. Discuss the continuous professional competency (CPC) requirements of maintaining registration with PHECC
2. Define scope of practice and explain PHECC's role in setting the limits of professional practice
3. State the advantages of developing a structured personal development plan (PDP) that records all aspects of learning and development
4. Identify own CPC needs
5. Describe how to evaluate the CPC process from an individual perspective
6. State how PDP's assist to develop and enhance knowledge, understanding and ability in specific clinical and professional skill areas and techniques
7. State how other professionals can assist students to focus and assess their knowledge, skills and attitudes
8. State how PDP's and "SMART objectives" assist professionals to discover new learning opportunities
9. State the principles of constructive feedback and how it provides for personal growth
10. State the reasons that motivation is an absolute requirement for learning and how recognition of learning and development, benefits the individual, group and organisation

Attitudinal Objectives
At the completion of this section, the student will be able to:

1. Actively participate and support research that will underpin future clinical practice and clinical effectiveness, using evidence to support best practice initiatives
2. Understand the knowledge and practice competently the clinical practice guidelines of PHECC

Skills Objectives
At the completion of this section, the student will be able to:

1. Design a learning portfolio to plan, analyse, reflect and record evidence of continuous professional competency
2. Design a PDP, using SMART objectives to schedule and record continuous professional competency and future intentions

Interpersonal and Team Management Skills

At the end of this module, the student will be able to demonstrate the skills necessary to effectively work with others as part of a team.

Knowledge Objectives

At the completion of this section, the student will be able to:

1. State what effects and impacts relationships can have on organisational development
2. Differentiate between a team and a group
3. State how effective leadership behaviours can optimise productivity
4. State how attitudes can reduce morale and motivation
5. Describe how people centred approaches improve individual and organisational productivity
6. Define synergy and provide contextualised workplace examples
7. Describe how workplace behaviour influences other people's behaviours
8. Describe how resistance and conflict can be reduced in a working environment

Attitudinal Objectives

At the completion of this section, the student will be able to:

1. Demonstrate motivation and enthusiasm within a short presentation
2. Demonstrate a caring professional attitude to people who do not support your viewpoint without compromising your professional, ethical, legal or moral position
3. Demonstrate the attributes of a professional role model toward other members of the profession, other professionals and other interested parties
4. Respect and value the roles and contributions of all members of the team
5. Gain confidence in reflecting upon your contributions to patient care and team working
6. Demonstrate and value a professional understanding and attitude towards other multi-professional groups and support staff

Skills Objectives

At the completion of this section, the student will be able to:

1. Design a force field analysis that provides information and functionality to quantify an intended course of action
2. Using a force field analysis deliver a short presentation to influence a group toward a rational decision.
3. Demonstrate application of communication skills that encourage support and enthusiasm from team members
4. Demonstrate communication skills that support a team objective
5. Work effectively and efficiently within multi-professional teams

Mentorship

At the completion of this module, the student will be able to act as an effective adviser to colleagues in the further development of their professional practice.

Knowledge Objectives
At the completion of this section, the student will be able to:

1. Describe the roles and responsibilities of the mentor
2. Describe the student's responsibilities toward the mentorship process
3. Differentiate between the educational roles of tutor, assessor and mentor
4. Describe the type of environment that would be conducive to mentoring a student
5. Describe the questioning techniques that are used to probe
6. State the activities required to set the mentorship agenda and monitoring progress
7. Describe problem definition and resolution
8. Describe the support network
9. Describe the issues and problems of confidentiality and how they should be dealt with in an appropriate professional manner

Attitudinal Objectives
At the completion of this section, the student will be able to:

1. Demonstrate active listening
2. Demonstrate probing open questioning
3. Demonstrate appropriate interpersonal skills to encourage learning and development
4. Demonstrate an appropriate professional caring manner
5. Interact with the student/peer to encourage open communication and learning
6. Demonstrate motivation toward the process
7. Demonstrate assertiveness without aggression
8. Demonstrate and facilitate understanding and enthusiasm
9. Enhance the student's motivation through supportive behaviours
10. Provide constructive and positive feedback

Skills Objectives
At the completion of this section, the student will be able to:

1. Prepare the agenda for a mentoring assignment
2. Prepare all documentation
3. Demonstrate assessment and evaluation to promote learning
4. Identify needs of student
5. Demonstrate the mentoring process
6. Demonstrate appropriate questioning techniques
7. Demonstrate assistance in problem definition
8. Demonstrate facilitation of problem solving
9. Monitor student progress and provide positive, constructive feedback

Approval Criteria for the Course: Paramedic

Council set the requirements for submitting an application as well as maintaining status as a PHECC recognised institution in Council Rules. The detailed course approval criteria are described in subsections below. The information supplied by the Applicant institution against each of the criteria must satisfy Council that arrangements are in place to provide a high quality course ensuring the validity of the PHECC award in National Qualification in Emergency Medical Technology (NQEMT) – Paramedic.

Note the criteria will be revised in 2015 in line with the Teaching Faculty Framework 2014/5.

1. Recognised institutions at paramedic level must have an association/affiliation with an Irish tertiary medical or nursing school. Evidence of the association/affiliation such as a copy of the memorandum of understanding between the two institutions will be sought. Details of that association/affiliation will be made explicit and a joint working committee which includes representation from both institutions will operate and manage delivery of the paramedic course.

The following rules (I-IV) were approved by Council 14th November 2013

I. Before granting approval to **a higher level institute and their healthcare partner**, PHECC shall satisfy itself both in regard to the educational institution and healthcare partner and its associated bodies in which education is to be carried out-
   a) that adequate quantity and quality of clinical practice experience is available;
   b) that the educational facilities for the students undertaking the education programme are adequate;
   c) that the number of teaching staff and lecturers and their qualifications are adequate;
   d) the adequacy and suitability of any assessments carried out by the higher level institute or healthcare partner for the purpose of establishing knowledge attainment or competency in clinical pre-hospital emergency care skills of practitioners.

II. In addition to the application forms the following supplementary information must be provided by the applicant higher level institute for approval:
   a) Proposed faculty for the higher education programme
   b) A proposed Paramedic curriculum based on the current Paramedic Education and Training Standard that must, inter alia, specify the structure, process and outcome of, methods of assessment, examination, teaching strategies and appeals systems
   c) A proposal for quality assurance activities and outcomes aimed at ensuring continuing support for and development of the curriculum and for the development of learning environments approved for clinical placements/internship sites.

III. Before an educational institution or its healthcare partner is granted approval, it may be visited and reviewed by representatives of PHECC.

IV. The Head of the Department/School of Medicine in the higher education institute and the analogous responsible person in the hospital or other healthcare setting shall supply to PHECC such details, as may be required by PHECC, of any person undertaking the education and training programme leading to award of the NQEMT paramedic.

2. **Entry criteria**:
    a) The age for entry to a paramedic course is 18.
    b) Successful completion of the CFR Advanced course is a co-requisite of the paramedic course.
    c) At entry level individuals must be educated to the leaving certificate standard (or equivalent). A leaving certificate from the established or vocational programme with a pass in at least six subjects is required. The leaving certificate applied programme is not acceptable. Equivalency, allows for entry by students with European and other International qualifications.
    d) Entry arrangements for mature students are in accordance with the entry criteria and particulars of the affiliated higher level institute of education.
3. **Duration:** The Paramedic course is no less than 10 week theoretical instruction and no less than 18 weeks undergraduate internship and one year postgraduate internship. For full information see PHECC's bulletin: *Minimum duration and essential requirements of PHECC practitioner level courses leading to registration (BLN006)*.
4. **The commencement** of each NQEMT course will be notified to PHECC. This notification will list the required faculty for every course.
5. **Ratio:** The ratio must not exceed 6/8 students per instructor in a syndicate (or practical skill sessions).
6. **Assessment:** Course participants will take the National Qualification in Emergency Medical Technology (NQEMT) –paramedic exams. The institution must submit an assessment schedule for approval.
7. **Student attendance:** The requirements for students' attendance, continuing progression and successful completion or successful/unsuccessful criteria for each phase of training (as appropriate) will be explicit and available in writing to students prior to course commencement. Details of how a student will compensate for any period of interruption/absence during each phase of the recognised course will be explicit and available in writing. Evidence of this is not currently sought on application but must be made available for inspection by PHECC on request.
8. **Faculty requirements for paramedic courses:** The minimum faculty requirement (core faculty) for an institution delivering a paramedic course is 4 full time tutors including 1 facilitator and a medical advisor. The standards for assistant tutors/tutors and facilitators are set out in *PHECC's Teaching Faculty Framework (STN00X)*. Furthermore:
    a) A tutor must act as the course director responsible for the administration and management of paramedic courses.
    b) Trained mentors and clinical supervisors must be available in numbers appropriate to the paramedic class size.

9. **A medical advisor** is required whose responsibilities are but should not be limited to:
    a) Oversight of the medical education content of the paramedic course ensuring that the curriculum conforms to PHECC education and training standards and CPGs.
    b) Active participation in the evaluation of courses including annual self-assessment and reporting requirements.
    c) Input in recruitment of faculty members.
    d) Attendance on PHECC's Medical Advisory Committee or other working groups on request.
10. **Clinical placement/Internship** is a period of paramedic training the purpose of which is to facilitate and empower students to observe and acquire actual patient care experience. During this period students will integrate the theory and clinical skills learned during the theoretical instruction with the reality of patient care (incorporating the 24-hour cycle). **Undergraduate internship** is a period of training that applies to student paramedics who are known as undergraduate interns (UIs) during this period. The purpose of the undergraduate internship is to facilitate and empower interns to observe and acquire actual patient care experience. It provides interns with opportunities to be an observer and gradually provide clinical care under direct supervision and receive feedback on their clinical practice. **Postgraduate internship** is the final period of training that applies to paramedic who are known as postgraduate interns (PIs) during this period. The purpose of the one-year postgraduate internship is to facilitate a period of adaptation where the PIs will consolidate clinical knowledge and competence as pre-hospital emergency care practitioners. During the period the PI will participate in continuous competence assessment that will determine his/her suitability to have their name entered for full registration on the PHECC Register.
11. **Types of clinical placement/internship sites** may include emergency, non-emergency ambulance services and other healthcare providers as appropriate. Ambulance services must be approved/licenced service providers. Acute hospital services include: emergency department, maternity services, coronary and intensive care units, theatre, etc. Consideration will also be given to fire and rescue services, primary care facilities, sporting and other events as appropriate.
12. **Range of patient clinical status and acuity levels:** The ambulance sites selected must demonstrate exposure to the range of patient clinical status and acuity levels as per the *EMS*

Priority Dispatch (STN001) and the *Inter Facility Patient Transfer Standard (STN002)* respectively.

13. **Approval of internship sites**. Council considers approval of clinical placement/internship sites on a site-by-site basis. Council welcomes variation and options for sites as rotation of student paramedics through multiple sites maximises opportunities for learning.
14. The recognised institution may at any time after initial application submit a list of any additional clinical placement/internship sites subject to the same conditions as above for approval.
15. PHECC maintains a record of all clinical placement/internship sites approved on initial application and any subsequent successful applications. The list of sites is frequently required under a targeted information request from PHECC.
16. **Mentoring**[9] of paramedic students is paramount. Every paramedic student must be provided with a named Mentor at the commencement of their course. Mentors who may be tutors or registered practitioners must have completed mentorship training to enable them to assist, support and guide others.
17. **Clinical supervision:** The course director will have ultimate responsibility for ensuring that student paramedics are receiving adequate clinical supervision. **Paramedic undergraduate internship** is divided into supernumerary and rostered periods. An intern's scope of practice is restricted during this period. Direct clinical supervision is provided by registered paramedics or advanced paramedics or other healthcare professional appropriate to the clinical placement site. During this time, every paramedic intern will have his/her name entered onto the paramedic undergraduate intern division of the PHECC register. **Postgraduate paramedic internship:** The clinical supervision requirement during postgraduate internship is the support and oversight from the recognised institution's tutors. A paramedic postgraduate intern can provide clinical care in keeping with his scope of practice (paramedic CPGs) and in accordance with the approval status of the CPG organisation for which he is employed or volunteering. There are no restrictions on the intern's scope of practice during this period. Consequently, the postgraduate intern can provide clinical care and supervision while working alongside other paramedic undergraduate and postgraduate interns as well as EMTs. Every paramedic postgraduate intern will have his/her name entered onto the paramedic postgraduate intern division of the PHECC register.

[9] **Mentoring** is defined by PHECC as the formal passing on or transfer of knowledge, skills and expertise through appropriate goals, objectives and activities from mentor to mentee.

18. **Learning experience in clinical placements:** In some instances paramedic students may be required to remain longer in clinical practice to ensure learning outcomes/competencies are achieved. The one year period of internship can be extended for an individual who requires remediation and additional support during this period. This determination is made by the course director on review of the available evidence (learning portfolio and other assessment methodologies). Such an extension is subject to an application to the Registrar who can issue an extension to the intern licence.
19. **Ongoing monitoring and quality review** of approved sites must be undertaken by a responsible person in the recognised institution. The monitoring should include an evaluation of the sites for adequacy of skill/learning opportunities and clinical supervision. This evaluation must be reported on in the Recognised Institution Self-Assessment Report (RISAR) submitted to PHECC annually as part of the Quality Review Framework.
20. **The Learning Portfolio** is a tool to support paramedic students and PHECC registrants/practitioners commit to and engage in lifelong learning after the NQEMT has been awarded and PHECC registration achieved. Gathering evidence of patient experiences during early clinical placement/internship is a critical factor of the learning process and paramedic students must be guided by faculty members to attain this. Every student must start using their learning portfolio early in the course and its design should include a reflective diary or learning log. The learning portfolio, which may include a log book (used to record and verify attendance at sites), must be maintained by the student with guidance from tutors and clinical supervisors/mentors during training. Council accepts there will be variation in the types or formats of learning portfolios available, however the following principles must be adhered to by the Institution when designing one suitable for use by students:
    a) The design used is either hardcopy or electronic and is user friendly and student centred.
    b) The portfolio should record the knowledge applied to clinical cases and the rationale for actions including reference to the appropriate CPG.
    c) The learning outcomes to be achieved (site specific) should be incorporated.
    d) The portfolio should allow for positive feedback and areas for improvement from tutors and clinical supervisors.
    e) Requirements of patient privacy and confidentiality are fully complied with.
    f) The learning portfolios will be available for inspection by PHECC.

g) The portfolio remains the property of the individual student.

21. **Design of the paramedic course and teaching methods:** The applicant institution must design the course to:
    a) Balance theory and practice to achieve the learning outcomes (course and domain specific) and competencies specified in the standard.
    b) Utilise a range of teaching/learning strategies providing a balance between presentations, small group interactions, demonstrations, practical and self- directed learning. Electronic learning and blended learning approaches are welcomed.
    c) Promote a commitment to self-directed and lifelong learning and be dynamic to reflect ongoing changes in pre-hospital emergency care delivery such as revisions in PHECC clinical practice guidelines (CPGs).
    d) Prepare students to understand and meet the registration requirements including the Code of Professional Conduct and Ethics (POL005) of the Pre-Hospital Emergency Care Council
    e) Promote a commitment to ongoing registration requirements such as *continuous professional competency (CPC)*.
22. **Course Information:** The Applicant must provide course information set out in the current application form. Such information includes but is not limited to:
    a) Copy of recognition of prior learning procedures for paramedic candidates to support the institution's RPL policy.
    b) Tutors and other faculty members including mentors and clinical supervisors.
    c) Sample lesson plans, timetable and materials to be used.
    d) Couse aims and methodology of theoretical and clinical instruction.
    e) Assessment and awards procedure.
    f) Library and ICT facilities including access to internet enabled PCs and access to online journals for students and tutors.
23. **Course Information- Internship:** The Applicant institution must apply for approval for every clinical placement/internship site proposed for use by student paramedics. To make a successful application Council requires specific information for every site. The Applicant must provide course information set out in the current application form. Such information includes but is not limited to:

a) Evidence of compliance with the requirements of the National Vetting Bureau (Children and Vulnerable Persons) Act 2012 (applies to institution's tutors, mentors, supervisory staff and students as applicable).
b) Evidence of formal agreements (letters, MOU and MOAs) in place between the responsible persons at both the institution and the sites. The agreements must name the responsible persons and the terms and conditions agreed to secure high-quality learning experiences for students.
c) A comprehensive set of learning outcomes, appropriate and specific to the learning environment (site) and facilitate applying clinical judgement. The practice of ticking boxes on a list of technical tasks should be avoided.
d) A document outlining evidence of anticipated (prospective) and actual (retrospective) exposure to categories of patients and role specification of the student paramedic in the proposed non-ambulance site and evidence of anticipated (prospective) and actual (retrospective) exposure to categories of patients and role specification of the student paramedic in the proposed ambulance site/s as per the EMS Priority Dispatch (STN001) and Inter Facility Patient Transfer Standard (STN002) respectively.
e) A document detailing adequate numbers of clinical supervisors for every site. The role of the clinical supervisor is to assist with the creation of suitable learning environments with opportunities for student paramedics to observe clinical practice. Acceptable professional qualifications of clinical supervisors are: registered practitioners, assistant tutors, tutors, registered nurses/midwives and registered medical practitioners appropriate to the site.
f) A document showing evidence of numbers of mentors available for paramedic students during their course.
g) A copy of quality assurance procedures to support the institution's policy. The procedure must specifically address how the quality of learning experiences for students/ interns during clinical placements is monitored, by whom and how deficits will be addressed.
h) A sample learning portfolio including a methodology for reflection.

Notification of Successful Postgraduate Internship

During the year of internship, faculty members in the recognised institution will carry out an evaluation of every postgraduate intern (paramedic). The successful paramedic must demonstrate knowledge, attitude and skills to practice safely and effectively, fulfilling his/her professional responsibility (code of conduct) within his/her scope of practice. The responsible person must notify PHECC the names of successful paramedic postgraduate interns when ready for accession to the full registration division on the Register.