ALBERTA COLLEGE OF PARAMEDICS

CONTINUING COMPETENCY PROFILE

EMERGENCY MEDICAL TECHNOLOGIST-PARAMEDIC (EMT-P)

Competency Profile for Alberta College of Paramedics
Alberta Occupational Competency Profile

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Disclaimer

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Factor Rating / Rating Scale

Factor Rating

1 – Mandatory
Competencies that are critical to the triage, treatment and transport of patient care. The competency directly affects patient care. The patient requires this service from the EMR/EMT/Paramedic to survive. The delineation of the competency as mandatory has
been approved by the Council and is consistent with the level of education and skill of the practitioner as outlined in the Alberta Occupational Competency Profile

2 – Recommended
Competencies that are primarily knowledge, which are important to providing triage, treatment and transport. The competency indirectly affects but is a necessary support to patient care. The competency affects how the EMR/EMT/Paramedic provides care.
The delineation of the competency as recommended has been approved by Council and is consistent with the level of education and skill of the practitioner as outlined in the Alberta Occupational Competency Profile
.

3 – Variable
Competencies that include the knowledge, skills, attitudes and judgment that enhance triage, treatment and transport, but vary from situation to situation, service to service and patient to patient. The competency may affect how the EMR/EMT/Paramedic provides patient care. The delineation of the competency as variable has been approved by the Council and is consistent with the level of education and skill of the practitioner as outlined in the Alberta Occupational Competency Profile

Rating Scale

1 - The practitioner does not have the knowledge, skills, attitudes, or judgements to perform the competency in a safe manner. **1**

2 - The practitioner is new to the competency, or is developing the knowledge, skills, attitude, or judgements described in the competency **2**

3 – The practitioner meets the basic expectations of the knowledge, skills, attitudes, or judgements described in the competency. **3**

4 – The practitioner exceeds the basic expectations of the knowledge, skills, attitudes, or judgements described in the competency. **4**

5 – The practitioner is recognized as having exceptional knowledge, skills, attitudes, or judgements in the performance of the competency. **5**

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Paramedic - Competency Profile

A. Core Knowledge

	A-1	1
	Knowledge of	2
	Medical	3
	Terminology	4
2		5

	A-2	1
	Knowledge of	2
	of Anatomy and	3
	Physiology	4
1		5

	A-3	1
	Knowledge of	2
	Pathophysiology	3
		4
1		5

	A-4	1
	Knowledge of	2
	Pharmacology	3
		4
1		5

	A-5	1
	Knowledge of	2
	Governing	3
	Legislation	4
3		5

	A-6	1
	Knowledge of	2
	Ambulance	3
	Equipment	4
1		5

	A-7	1
	Knowledge of	2
	Instrumentation	3
		4
1		5

	A-8	1
	Knowledge of	2
	EMS Systems	3
	And Health	4
3	Care	5

	A-9	1
	Knowledge of	2
	EMS	3
	Resources	4
2		5

	A-10	1
	Knowledge of	2
	Critical Incident	3
	Stress	4
3	Management	5

	A-11	1
	Knowledge of	2
	Medical-Legal	3
	Issues	4
2		5

B. Safety

	B-1	1
	Create and	2
	Maintain a	3
	Safe Work	4
1	Environment	5

	B-2	1
	Ability to	2
	Operate a	3
	Vehicle	4
2		5

	B-3	1
	Knowledge of	2
	Personal	3
	Protection	4
1	Equipment	5

	B-4	1
	Ability to	2
	Assess Scene	3
	Safety	4
1		5

	B-5	1
	Practice Safe	2
	Lifting and	3
	Moving	4
1	Techniques	5

	B-6	1
	Knowledge of	2
	Basic	3
	Extrication	4
2	Principles	5

	B-7 Identify	1
	and Resolve	2
	Potential	3
	Occupational	4
2	Hazards	5

	B-8	1
	Apply	2
	Infection	3
	Control	4
1	Precautions	5

	B-9	1
	Clean and	2
	Disinfect	3
	Equipment	4
2		5

	B-10	1
	Knowledge of	2
	and Practice	3
	of WHMIS	4
2	Regulation	5

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C. Communications and Interpersonal Skills

	C-1	1
	Communicate	2
	Effectively	3
		4
1		5

	C-2	1
	Assess and	2
	Control	3
	Situations	4
1		5

	C-3	1
	Operate	2
	Communication	3
	Devices	4
2		5

	C-4	1
	Knowledge of	2
	Medical	3
	Dispatch	4
3		5

	C-5	1
	Knowledge of	2
	Cultural	3
	Diversity	4
3		5

	C-6	1
	Awareness of	2
	Patients	3
	Special Needs	4
3		5

	C-7	1
	Demonstrate	2
	Documentation	3
	And Reporting	4
1	Skills	5

D. Patient Assessment

	D-1	1
	Perform	2
	Primary	3
	Survey	4
1		5

	D-2	1
	History	2
	Gathering	3
		4
1		5

	D-3	1
	Perform	2
	Secondary	3
	Survey	4
1		5

	D-4	1
	Perform	2
	Obstetrical	3
	Assessment	4
2		5

	D-5	1
	Perform	2
	Neonatal	3
	Assessment	4
1		5

	D-6	1
	Perform	2
	Pediatric	3
	Assessment	4
1		5

	D-7	1
	Perform	2
	Geriatric	3
	Assessment	4
1		5

	D-8	1
	Perform	2
	Psychological	3
	/ Behavioural	4
1	Assessment	5

E. Ability to Perform Patient Systems Assessment

	E-1	1
	Perform	2
	Neurological	3
	Assessment	4
1		5

	E-2	1
	Perform	2
	Respiratory	3
	Assessment	4
1		5

	E-3	1
	Perform	2
	Cardiovascular	3
	Assessment	4
1		5

	E-4	1
	Perform	2
	GI/GU	3
	Assessment	4
2		5

	E-5	1
	Perform	2
	Integumentary	3
	Assessment	4
2		5

	E-6	1
	Perform	2
	Musculoskeletal	3
	Assessment	4
1		5

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F. Perform and Interpret Diagnostic Testing

	F-1 Perform Vital Signs	1
		2
		3
		4
1		5

	F-2 Perform Oximetry Testing	1
		2
		3
		4
1		5

	F-3 Perform Glucometric Testing	1
		2
		3
		4
1		5

	F-4 Perform Cardiac Monitoring	1
		2
		3
		4
1		5

	F-5 Perform End-Tidal CO2 Monitoring Capnography	1
		2
		3
		4
1		5

	F-6 Obtain Venous Blood Sample	1
		2
		3
		4
3		5

	F-7 Demonstrate Knowledge of Arterial Blood Sample via Radial Puncture	1
		2
		3
		4
2		5

	F-8 Demonstrate Knowledge of and Interpret Laboratory and Diagnostic Imaging Results	1
		2
		3
		4
3		5

	F-9 Perform Invasive Core Temperature Monitoring	1
		2
		3
		4
3		5

	F-10 Demonstrate Knowledge of Arterial Line Monitoring	1
		2
		3
		4
2		5

	F-11 Demonstrate Knowledge of Central Venous Pressure Monitoring	1
		2
		3
		4
3		5

	F-12 Demonstrate Knowledge of Arterial Blood Samples via Arterial Line Access	1
		2
		3
		4
3		5

	F-13 Demonstrate Knowledge of Pulmonary Artery Catheter Monitoring	1
		2
		3
		4
3		5

	F-14 Demonstrate Knowledge of Intra-Aortic Balloon Pump Monitoring	1
		2
		3
		4
3		5

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G. Medication Administration

	G-1	1
	Medication	2
	Administration	3
		4
1		5

	G-2	1
	Administration	2
	via Oral Route	3
		4
1		5

	G-3	1
	Administration	2
	via Inhalation	3
		4
1		5

	G-4	1
	Administration	2
	via	3
	Intramuscular	4
1	Route	5

	G-5	1
	Administration	2
	via Sublingual	3
	Route	4
1		5

	G-6	1
	Administration	2
	via	3
	Subcutaneous	4
1	Route	5

	G-7	1
	Administration	2
	via Topical	3
	Route	4
2		5

	G-8	1
	Administration	2
	via Intravenous	3
	Route	4
1		5

	G-9	1
	Administration	2
	via Endotracheal	3
	Route	4
1		5

	G-10	1
	Administration	2
	via Intraosseus	3
	Route	4
1		5

	G-11	1
	Administration	2
	via Umbilical	3
	Vein	4
1		5

	G-12	1
	Administration	2
	via Rectal	3
	Route	4
1		5

	G-13	1
	Administration	2
	via Intralingual	3
	Route	4
1		5

	G-14	1
	Administration	2
	via Intradermal	3
	Route	4
2		5

	G-15	1
	Administration	2
	via Infusion	3
	Pump	4
1		5

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H. Clinical Decision Making

	H-1	1
	Principles of	2
	Effective	3
	Decision	4
1	Making	5

	H-2	1
	Determine Care	2
	for Neurological	3
	Alterations	4
1		5

	H-3	1
	Determine Care	2
	for Respiratory	3
	Alterations	4
1		5

	H-4	1
	Determine Care	2
	for	3
	Cardiovascular	4
1	Alterations	5

	H-5	1
	Determine Care	2
	for GI / GU	3
	Alterations	4
2		5

	H-6	1
	Determine Care	2
	for	3
	Musculoskeletal	4
1	Alterations	5

	H-7	1
	Determine Care	2
	for Endocrine /	3
	Immune	4
1	Alterations	5

	H-8	1
	Determine Care	2
	for	3
	Integumentary	4
1	Alterations	5

	H-9	1
	Determine Care	2
	for Poisoning or	3
	Overdose	4
1		5

	H-10	1
	Determine Care	2
	for Extremes of	3
	Temperature	4
1		5

	H-11	1
	Determine Care	2
	for Behavioural	3
	Crises	4
1		5

	H-12	1
	Determine Care	2
	for Obstetric /	3
	Gynecological	4
1	Patients	5

	H-13	1
	Determine Care	2
	for Neonatal	3
	Patients	4
1		5

	H-14	1
	Determine Care	2
	for Pediatric	3
	Patients	4
1		5

	H-15	1
	Determine Care	2
	for Geriatric	3
	Patients	4
2		5

	H-16	1
	Determine Care	2
	for Physically	3
	Challenged	4
2	Patients	5

	H-17	1
	Determine Care	2
	for Special	3
	Needs Patients	4
2		5

	H-18	1
	Multiple	2
	Casualty	3
	Incident (MCI)	4
1		5

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I. Patient Management Skills

	I-1	1
	Perform Airway	2
	Management	3
		4
1		5

	I-2	1
	Perform Oxygen	2
	Therapy	3
		4
1		5

	I-3	1
	Perform Patient	2
	Ventilation	3
		4
1		5

	I-4	1
	Perform Cardio-	2
	pulmonary	3
	Resuscitation	4
1	(CPR)	5

	I-5	1
	Perform	2
	Automated	3
	Defibrillation	4
1		5

	I-6	1
	Perform Wound	2
	Care	3
		4
1		5

	I-7	1
	Perform	2
	Bandaging and	3
	Wound Care	4
1		5

	I-8	1
	Perform Spinal	2
	Motion	3
	Restriction	4
1		5

	I-9	1
	Perform	2
	Splinting	3
		4
1		5

	I-10	1
	Perform	2
	Intravenous	3
	Therapy	4
1		5

	I-12	
	Perform Manual	
	Cardioversion	
1		

	I-13	1
	Perform Cardiac	2
	Pacing	3
		4
1		5

	I-14	1
	Perform	2
	Intraosseous	3
	Infusions	4
1		5

	I-15	1
	Perform Urinary	2
	Catheterization	3
		4
1		5

	I-16	1
	Perform Oro	2
	and Nasogastric	3
	Tube Insertion	4
1		5

	I-17	
	Perform	2
	Thoracentesis	3
		4
1		5

	I-18	1
	Perform	2
	Pericardio	
	Centesis	3
		4
2		5

	I-19	1
	Perform Chest	2
	Tube	
	Monitoring	3
		4
2		5

	I-20	1
	Initiate Monitor	2
	& Maintain	
	Blood & Blood	3
	Product	4
2	Transfusions	5

	I-21	
	Perform Ostomy	
	Care	
2		

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J. Patient Transport

	J-1	1		**J-2**	1		**J-3**	1		**J-4**	1
	Have a Working	2		Have a Working	2		Have a Working	2		Have a Working	2
	Understanding	3		Understanding	3		Understanding	3		Understanding	3
	of Ground	4		of Fixed Wing	4		of Rotor Wing	4		of Marine	4
1	Transport	5	2	Transport	5	2	Transport	5	3	Transport	5

	J-5	1
	Safely Convey	2
	Patients	3
		4
1		5

K. Professionalism

	K-1	1		**K-2**	1		**K-3**	1		**K-4**	1
	Knowledge of	2		Knowledge of	2		Knowledge of	2		Maintain	2
	Alberta	3		Standards of	3		Code of Ethics	3		Currency in	3
	Occupational	4		Practice	4			4		Professional	4
1	Competency	5	1		5	1		5	1	Development	5
	Profile										

	K-5	1		**K-6**	1		**K-7**	1
	Maintain	2		Ability to Work	2		Demonstrate	2
	Personal	3		Effectively in	3		Leadership	3
	Well-being	4		Mullti-disciplinary	4		Skills	4
2		5	2	Environments	5	1		5

Major Competency Area: A

A. Core Knowledge

Priority: **Two**

Competency: **A-1**

A-1 Knowledge of Medical Terminology

A Paramedic will:

A-1-1 **Identify and define commonly used root words, prefixes, suffixes and abbreviations.**

A-1-2 **Identify and use an accepted standard of medical symbols and acronyms.**

A-1-3 **Recognize and use terminology related to specific body systems and their diseases.**

A-1-4 **Use appropriate medical terminology in reporting and documentation.**

Major Competency Area: **A** **Core Knowledge**	Priority: **One**

Competency: **A-2**

A-2 Knowledge of Anatomy and Physiology

A Paramedic will:

A-2-1 Define and explain the relationship between anatomy and physiology as a basis for understanding the human body:

- Define anatomy and physiology and how they relate to each other;
- List and define the required life processes;
- Define each of the following levels of structural organization that make up the human body: chemical, cellular, tissue, organ, system and organism;
- Identify the principle systems of the human body, list the representative organs for each system, and describe the function of each system;
- List and describe the types and function of human body membranes;
- Define the anatomical positions and compare common and anatomical terms used to describe various regions of the human body;
- Define the anatomical planes that may be passed through the human body;
- Define directional terms used in association with the human body;
- List by name and location the principle body cavities and the organs contained within them;
- Explain how the abdominopelvic cavity is divided into nine regions and into quadrants;
- Define a feedback system and explain its role in homeostasis.

A-2-2 Identify important aspects of chemistry related to the function of the human body:

- Identify by name and symbol the principle chemical elements of the human body;
- Discuss the functions of water as a solvent, suspending medium, chemical reactant, heat absorber and lubricant;
- List and compare the properties of acids, bases and salts;
- Define pH as the degree of acidity or alkalinity of a solution;
- Explain the role of a buffer system as a homeostatic mechanism that maintains the pH of a body fluid.

A Paramedic will:

A-2-3 Relate cellular biology to the provision of care:

- Describe how materials move by diffusing, facilitated diffusion, osmosis, active transport and vesicular transport;
- Define a cell, list it's generalized parts and identify the various structure and function of cellular components;
  - Cell membrane
  - Cytoplasm
  - Cell nucleus
  - Ribosomes
  - Endoplasmic reticulum
  - Mitochondria
  - Centrioles.

A-2-4 Demonstrate understanding of the various tissues of the human body:

- Define a tissue;
- Classify the tissues of the body into the major types and define each type;
- Identify the distinguishing characteristics of connective tissue;
- Describe the structure and functions of osseous tissue (bone) and vascular tissue (blood);
- Compare the various types of muscle tissue with regard to structure and function;
- Describe the structural features and functions of nervous tissue.

A-2-5 Demonstrate an understanding of the nervous system:

- Identify the principle parts of the brain;
- Describe how the brain is protected;
- Compare the components of the brain stem with regard to structure and function;
- Compare the sensory, motor, and association areas of the cerebrum;
- Describe the anatomical characteristics and functions of the cerebellum;
- Define a sensation and list the four prerequisites necessary for its transmission;
- Distinguish somatic, visceral, referred, and phantom pain;
- Compare the structural and functional differences between the somatic efferent and autonomic portions of the nervous system;
- Identify the principle structural features of the autonomic nervous system;
- Compare the sympathetic and parasympathetic divisions of the autonomic nervous system in terms of structure, physiology, and neurotransmitters released;
- Describe the various postsynaptic receptors involved in autonomic responses;
- Identify the parts of the neuron, and give their function;
- Describe the process of nerve impulse transmission.

A Paramedic will:

A-2-5 Demonstrate an understanding of the nervous system (continued):

- Explain how the spinal cord is protected;
- Identify the functions of the spinal cord;
- Describe the gross anatomical features of the spinal cord;
- Identify the factors to be elicited when evaluating the nervous system, including trauma and non-trauma related problems;
- Describe spinal cord injury and list the immediate and long-range effects.

A-2-6 Demonstrate an understanding of the endocrine system:

- Discuss the functions of the endocrine system in maintaining homeostasis;
- Define the term hormone;
- Discuss how the pituitary gland and hypothalamus are structurally and functionally related;
- List the hormones of the adenohypophysis, their principle actions, and their associated hypothalamic regulating factors;
- Discuss the function of glucagon and insulin and their relation to glucose metabolism;
- Discuss the location and function of the following endocrine glands: pituitary gland, thyroid gland, parathyroid gland, pancreas, adrenal gland, ovaries, and testes;
- Identify the body reactions during the alarm, resistance, and exhaustion stages of stress.

A-2-7 Demonstrate an understanding of the respiratory system:

- Identify the organs of the respiratory system;
- Compare the structure and function of the external and internal nose;
- Identify the regions of the pharynx and describe their roles in respiration;
- Describe the structure of the larynx and explain its function in respiration and voice production;
- Explain the structure and function of the trachea;
- Describe the location and structure of the tubes that form the bronchial tree;
- Identify the coverings of the lungs and the division of the lungs into lobes;
- Describe the composition of a lobule of the lung;
- Explain the structure of the alveolar-capillary (respiratory) membrane and its function in the diffusion of respiratory gases;
- List the events involved in inspiration and expiration;
- Explain how compliance and airway resistance relate to breathing;
- Define coughing, sneezing, sighing, yawning, sobbing, crying, laughing, and hiccupping as modified respiratory movements;

A Paramedic will:

A-2-7 **Demonstrate an understanding of the respiratory system (continued):**

- Compare the volumes and capacities of air exchanged during respiration;
- Explain how external and internal respiration occur;
- Describe how the oxygen-carrying capacity of the blood is affected by oxygen, carbon dioxide and temperature;
- Explain the effect of the oxygen dissociation curve;
- Explain how the respiratory gases are transported by the blood;
- Explain how the respiratory centre functions in establishing the basic rhythm of respiration;
- Describe how various neural and chemical factors may modify the rate of respiration;
- Describe the effects of aging in the respiratory system.

A-2-8 **Demonstrate an understanding of the cardiovascular system:**

- Contrast the general roles of blood, lymph, and interstitial fluid in maintaining homeostasis;
- Define the principle physical characteristics of blood and its functions in the body;
- Compare the origins of the formed elements in blood;
- Discuss the structure of erythrocytes and their function in the transport of oxygen and carbon dioxide;
- Discuss the structure of thrombocytes and explain their role in blood clotting;
- List the components of plasma and explain their importance;
- Explain how the body attempts to prevent blood loss;
- Identify the stages involved in blood clotting;
- Explain the various factors that promote and inhibit blood clotting;
- Define the antigen-antibody reaction as the basis for ABO blood grouping;
- Describe the location of the heart and identify its borders;
- Describe the structure of the pericardium;
- Contrast the structure and location of the epicardium, myocardium, and endocardium of the heart wall;
- Identify and describe the chambers, great vessels, and valves of the heart;
- Discuss the route of blood in coronary circulation;
- Explain the structural and functional features of the conduction system of the heart;
- Explain the pressure changes associated with blood flow through the heart;
- Describe the principle events of a cardiac cycle;
- Define the normal sounds of the heart;
- Define cardiac output;

A Paramedic will:

A-2-8 Demonstrate an understanding of the cardiovascular system (continued):

- Define Starling's Law;
- Compare the effects of sympathetic and parasympathetic stimulation of the heart;
- Define the role of baroreceptors in reflex pathways in controlling heart rate;
- Compare the structure and function of arteries, arterioles, capillaries, venules, and veins;
- Define a blood reservoir and explain its importance;
- Relate the importance of cardiac output, blood volume, and peripheral resistance to blood pressure;
- Explain the role of the vasomotor centre in controlling blood pressure;
- Describe the effects of epinephrine, histamine on blood pressure;
- Define autoregulation and explain its importance;
- Explain how skeletal muscle contractions, valves in veins, and breathing assist in the return of venous blood to the heart;
- Define pulse and identify the arteries where a pulse may be palpated;
- Define systolic, diastolic, and pulse pressures;
- Identify the principle arteries and veins of systemic circulation;
- Identify the major blood vessels of pulmonary circulation;
- Trace the route of blood involved in hepatic portal circulation and explain its importance;
- Compare fetal and adult circulation;
- Explain the change of fetal circulation structures once postnatal circulation is established;
- Explain the effects of exercise on the cardiovascular system;
- Describe the effects of aging on the cardiovascular system.

A-2-9 Demonstrate an understanding of the musculoskeletal system:

- Discuss the components and functions of the skeletal system;
- List and describe the features of a long bone;
- Identify the zones and growth pattern of the epiphyseal plate;
- Explain the effects of aging on the skeletal system;
- Define the principle types of bones;
- List the components of the axial skeleton;
    - identify the bones of the skull and the major markings associated with each.
    - identify the paranasal sinuses of the skull.
    - identify the principle foramina of the skull.
    - identify the bones of the vertebral column and their principle markings.

A Paramedic will:

A-2-9 Demonstrate an understanding of the musculoskeletal system (continued):

- List the components of the appendicular skeleton;
  - list the defining characteristics and curves of each region of the vertebral column
  - identify the bones of the thorax and their principle markings
  - identify the bones of the pectoral girdle and their major markings
  - identify the upper extremity, its component bones, and their markings
  - identify the components of the pelvic girdle and their principle markings
  - identify the lower extremity, its component bones, and their markings
- Compare the principle structural differences between female and male skeletons;
- Define an articulation and identify the factors that determine the degree of movement at a joint;
- Compare the structure, type of movement, and location of fibrous, cartilaginous, and synovial joints;
- Describe selected articulations of the body with respect to the bones that enter into their formation, structural classification, and anatomical components;
- List the characteristics and functions of muscle tissue;
- Compare the location, microscopic appearance, nervous control, and functions of the kinds of muscle tissue;
- Define fascia, epimysium, perimysium, endomysium, tendons, and aponeuroses and list their modes of attachment to muscles;
- Explain the relationship of blood vessels and nerves to skeletal muscles;
- Compare oxygen debt, fatigue, and heat production as examples of muscle homeostasis;
- Compare spasms, cramps, convulsions, fibrillation, and tics as abnormal muscular contractions;
- Describe the relationship between bones and skeletal muscles in producing body movements;
- Define a lever and fulcrum and compare the three classes of levers on the basis of placement of the fulcrum, effort, and resistance;
- Identify the various arrangements of muscle fibres in a skeletal muscle and relate the arrangements to the strength of contraction and range of movement;
- Identify the principle skeletal muscles in different regions of the body by name, origin, insertion, action, and innervation.

A Paramedic will:

A-2-10 Demonstrate an understanding of the gastrointestinal and genitourinary systems:

- Identify the external and internal gross anatomical features of the kidneys;
- Discuss the process of urine formation through glomerular filtration, tubular reabsorption, and tubular secretion;
- Discuss the operational principle of hemodialysis;
- Compare the effects of blood pressure, blood concentration, temperature, diuretics, and emotions on urine volume;
- List and describe the physical characteristics of urine;
- List the normal chemical constituents of urine;
- Discuss the structure and physiology of the ureters;
- Describe the structure and physiology of the urinary bladder;
- Explain the physiology of the micturition reflex;
- Explain the structure and physiology of the urethra;
- Describe the effects of aging on the urinary system.

A-2-11 Demonstrate an understanding of the process of pregnancy:

- Identify the location and function of ovaries, fallopian tubes, uterus, endometrium, cervix, vagina, perineum, labia;
- Describe the stages of the menstrual cycle;
- Identify the sites of fertilization and implantation of the fertilized egg;
- Describe fetal-maternal blood flow and the role of the placenta;
- Define antepartum, postpartum, prenatal, natal, primagravida, multigravida, primapara, and multipara.

A-2-12 Demonstrate an understanding of the integumentary system:

- Define integumentary system;
- Describe the specific tissue types composing the epidermis and dermis;
- Identify the major layers of the epidermis and dermis and describe the function of each layer;
- Identify and compare the structure, distribution, and most common locations of sweat and oil glands. Also compare the composition and function of their secretions;
- Describe the different functions of the skin, and discuss how these functions are accomplished by the various skin components;
- Explain why a serious burn represents a loss of homeostatis and a threat to life;
- Discuss the characteristics of basal cell carcinoma, squamous cell carcinoma, and malignant melanoma;
- Describe the changes that occur in the skin from birth to old age;
- Explain the importance of body temperature regulation.

Major Competency Area: **A** **Core Knowledge**	Priority: **One**

Competency: **A-3**

A-3 Knowledge of Pathophysiology

A Paramedic will:

A-3-1 **Define pathophysiology as the study of disease processes.**

A-3-2 **Identify and describe basic pathophysiological processes:**

- Etiology;
- Pathophysiology;
- Manifestations;
- Complications;
- Chronic versus acute condition/disorders.

A-3-3 **Describe common body responses to disease:**

- Level of organization;
  - cellular
  - tissue
  - organ
  - system
  - level
- Immunity;
- Inflammation;
- Stress;
- Carcinogenesis;
- Psychological.

Competency: **A-3** **Knowledge of Pathophysiology**	Page: 2

A Paramedic will:

A-3-4 **Identify the etiology, pathophysiology, presentations and common complications related to the following systems:**

- Central nervous;
- Respiratory;
- Cardiovascular;
- Lymphatic;
- Immune;
- Endocrine;
- Gastrointestinal;
- Genitourinary;
- Musculoskeletal;
- Integumentary System.

Major Competency Area: **A** **Core Knowledge**	Priority: **One**

Competency: **A-4**

A-4 Knowledge of Pharmacology

A Paramedic will:

A-4-1 Differentiate trade and generic names.

A-4-2 Demonstrate knowledge and ability to conduct drug counts and inventory control on narcotics and controlled substances:

- Utilization of prescribed narcotic control sheets;
- Follow agency policy regarding frequency of drug counts;
- Complete all required inventory control sheets and requisitions;
- Waste of controlled medications must be noted and signed following local protocol.

A-4-3 Distinguish among drug preparations.

A-4-4 Explain the meaning of drug terms necessary to safely interpret information in drug-reference sources:

- Half-life;
- Therapeutic index;
- Peak level;
- Lethal Dose, Loading Dose, Maintenance Dose;
- Minimum effective dose;
- Onset of action, duration, agonist, antagonist;
- Habituation, Synergism, Addiction, Potentiation;
- Pharmacokinetics, Pharmacodynamics, Classifications.

A-4-5 Discuss factors that influence drug absorption, metabolism, distribution, and elimination:

- Age of patient, body mass, physical condition, drug action and interaction.

Competency: **A-4** **Knowledge of Pharmacology**	Page: 2

A Paramedic will:

A-4-6 Demonstrate a working knowledge of major effects and side effects of medications and drug families including, but not limited to:

- Opiates;
  - Heroin
  - Codeine
- Stimulants;
  - Cocaine
  - Anti-depressants
  - Tricyclic
  - Tetracyclic
- Depressants;
  - Benzodiazepines
  - Barbiturates
- Hallucinogens.

A-4-7 Describe how drugs react with receptors to produce the desired effects.

A-4-8 Calculate and correctly measure or infuse the correct volume of drug to be administered for a given situation.

A-4-9 List the class, actions, onset, duration, indications, contraindications, adverse reactions, drug interactions, dosage, route of administration, and special considerations of medications for the central nervous system including, but not limited to:

- Opioid Analgesics and Antagonists;
  - Codeine
  - Fentanyl Citrate
  - Meperidine
  - Morphine Sulfate
  - Naloxone
- Nitrous Oxide ;
- Anesthetics ;
  - Proparacaine HCl
  - Tetracaine
  - Propofol
  - Ketamine

A Paramedic will:

A-4-9 **List the class, actions, onset, duration, indications, contraindications, adverse reactions, drug interactions, dosage, route of administration, and special considerations of medications for the central nervous system including, but not limited to (continued):**

- Anticonvulsants;
  - Phenytoin
- Antiparkinsonism Agents;
  - Benztropine Mesylate
- Anxiolytics, Hypnotics and Antagonists;
  - Diazepam
  - Lorazepam
  - Midazolam
  - Phenobarbital
  - Flumazenil
- Neuroleptics;
  - Haloperidol.

A-4-10 **List the class, actions, onset, duration, indications, contraindications, adverse reactions, drug interactions, dosage, route of administration, and special considerations of medications for the autonomic nervous system, including but not limited to:**

- Adrenergic Agonists;
  - Dobutamine
  - Dopamine
  - Epinephrine
  - Isoproterenol
  - Norepinephrine
- Adrenergic Antagonists;
  - Labetalol
  - Metoprolol
  - Phentolamine
  - Propanalol
  - Paralytics (Polarizing and non-depolarizing).

A Paramedic will:

A-4-11 **List the class, actions, onset, duration, indications, contraindications, adverse reactions, drug interactions, dosage, route of administration, and special considerations of medications for the respiratory system, including, but not limited to:**

- Bronchodilators;
  - Epinephrine, Racemic
  - Epinephrine, nebulized
  - Ipratropium Bromide
  - Salbutamol
  - Theophylline
- Diuretics;
  - Furosemide
  - Mannitol
- Vasoconstrictors;
  - Phenylephrine
  - Xylometaxoline HCl.

A-4-12 **List the class, actions, onset, duration, indications, contraindications, adverse reactions, drug interactions, dosage, route of administration, and special considerations of medications for the cardiovascular system, including, but not limited to:**

- Antihypertensive Agents;
  - Apresoline HCl
  - Diazoxide
  - Nifedipine
  - Sodium Nitroprusside
- Cardiac Glycosides;
  - Digoxin
- Class 1 Antiarrhythmics;
  - Procainamide
  - Lidocaine
- Class 2 Antiarrhythmics;
- Class 3 Antiarrhythmics;
  - Bretylium
  - Amiodarone
- Class 4 Antiarrhythmics;
  - Verapamil
  - Diltiazem

A Paramedic will:

A-4-12 List the class, actions, onset, duration, indications, contraindications, adverse reactions, drug interactions, dosage, route of administration, and special considerations of medications for the cardiovascular system, including, but not limited to (continued):

- Adrenergic Antagonists;
  - Esmolol
- Antianginal Agents;
  - Nitroglycerine
- Anticoagulants;
  - Heparin
  - Low molecular weight Heparin
- Thrombolytics;
  - Streptokinase
  - r-tPa
- Platelet Inhibitors;
  - Acetylsalicylic Acid
- Vasopressors;
  - Vasopressin.

A-4-13 List the class, actions, onset, duration, indications, contraindications, adverse reactions, drug interactions, dosage, route of administration, and special considerations of medications for the gastrointestinal system, including, but not limited to:

- Antiemetics;
  - Dimenhydrinate
  - Metoclopramide
  - Prochloperazine.

A-4-14 List the class, actions, onset, duration, indications, contraindications, adverse reactions, drug interactions, dosage, route of administration, and special considerations of medications for the genitourinary and reproductive systems, including, but not limited to:

- Uterotonics;
  - Ergometrine Maleate
  - Oxytocin
- Tocolytics;
  - Ritodrine
  - Magnesium Sulfate.

A Paramedic will:

A-4-15 **List the class, actions, onset, duration, indications, contraindications, adverse reactions, drug interactions, dosage, route of administration, and special considerations of medications for the endocrine system, including, but not limited to:**

- Antihypoglycemic Agents;
- Oral Glucose Gel;
- 50% Dextrose in Water ($D_{50}W$);
- 25% Dextrose in Water ($D_{25}W$);
- Glucagon;
- Insulin.

A-4-16 **List the class, actions, onset, duration, indications, contraindications, adverse reactions, drug interactions, dosage, route of administration, and special considerations of medications for the musculoskeletal system, including, but not limited to:**

- Non-Steroidal Anti-Inflammatory;
  - Toradol.

A-4-17 **Demonstrate a working knowledge of the "Compendium of Pharmaceuticals and Specialties" and other drug reference material.**

Major Competency Area: **A** **Core Knowledge**	Priority: **Three**

Competency: **A-5**

A-5 Knowledge of Governing Legislation

A Paramedic will:

A-5-1 **State the relevance and application of the *Health Disciplines Act*:**
- EMT Regulation.

A-5-2 **State the relevance and application of the *Ambulance Services Act*:**
- Confidentiality;
- Staff, Equipment and Maintenance.

A-5-3 **State the relevance and application of the *Health Professions Act*:**
- Paramedic Regulation.

Provincial Legislation - www.qp.gov.ab.ca/catalogue/catalog_results.cfm

A-5-4 **State the relevance and application of the *Traffic Safety Act.***
A-5-5 **Demonstrate knowledge of the *Child, Youth & Family Enhancement Act.***
A-5-6 **Demonstrate knowledge of the *Protection of Persons in Care Act.***
A-5-7 **Demonstrate knowledge of the *Fatality Inquiries Act.***
A-5-8 **Demonstrate knowledge of the *Freedom of Information and Protection of Privacy Act.***
A-5-9 **Demonstrate knowledge of the *Emergency Medical Aid Act.***
A-5-10 **Demonstrate knowledge of the *Limitations Act.***
A-5-11 **Demonstrate knowledge of the *Mental Health Act.***
A-5-12 **Demonstrate knowledge of the *Personal Directives Act.***
A-5-13 **Demonstrate knowledge of the *Occupational Health and Safety Act.***
A-5-14 **Demonstrate knowledge of the *Health Information Act.***

Federal Legislation - /laws.justice.gc.ca/en/title/A.html

A-5-15 **Demonstrate knowledge of the *Controlled Drugs and Substances Act.***
A-5-16 **Demonstrate knowledge of the *Transportation of Dangerous Goods Act.***
A-5-17 **Demonstrate knowledge of the *Charter of Rights and Freedoms.***

Major Competency Area: **A** **Core Knowledge**	Priority: **One**

Competency: **A-6**

A-6 Knowledge of Ambulance Equipment

A Paramedic will:

A-6-1 **Identify the standards of ambulance equipment and supplies for, including, but not limited to, safe patient transport.**

A-6-2 **Identify equipment required for spinal motion restriction, including, but not limited to:**

- Spine boards;
- Head motion restriction devices;
- Cervical collars;
- Straps;
- Upper body motion restriction devices.

A-6-3 **Identify equipment required for splinting, including, but not limited to:**

- Repealed (January 2007)
- Traction splint;
- Air splint;
- Vacuum splint;
- Rigid splint;
- Malleable splint.

A-6-4 **Identify equipment required for wound care, including, but not limited to:**

- Dressings;
- Bandages;
- Tweezers;
- Hemostat.

A-6-5 **Identify equipment required for patient movement, including, but not limited to:**

- Ambulance stretcher;
- Chair stretcher;
- Portable stretcher;
- Scoop stretcher;
- Basket stretcher;
- Spine boards.

A Paramedic will:

A-6-6 **Identify equipment required for airway management, including, but not limited to:**

- Oxygen tanks;
- Oxygen delivery devices;
- Oxygen regulators;
- Suction devices;
- Oropharyngeal airway;
- Positive pressure ventilation device ;
- Pocket mask;
- Meconium aspirator;
- Intubation equipment;
- Transport ventilator;
- Nasopharyngeal airway.

A-6-7 **Identify equipment required for intravenous therapy, including, but not limited to:**

- IV warmer;
- IV supplies;
- Needles;
- Catheters;
- Pressure infuser;
- Infusion pump.

A-6-8 **Identify equipment required for medication administration, including, but not limited to:**

- Nebulizers;
- Syringes;
- Needles;
- Sharps container.

A-6-9 **Identify equipment required for patient comfort, including, but not limited to:**

- Urinal;
- Bedpan;
- K-basins;
- Facial tissue;
- Blankets, pillows, etc.

Major Competency Area: **A** **Core Knowledge**	Priority: **One**

Competency: **A-7**

A-7 Knowledge of Instrumentation

A Paramedic will:

A-7-1 **Demonstrate knowledge and use of instrumentation, including, but not limited to:**

- Blood pressure cuff;
  - automatic
  - manual
- Stethoscope;
- Glucometer;
- Thermometer;
- Penlight;
- Automated / semi-automated external defibrillator ;
- Cardiac monitor / defibrillator;
- Pulse oximeter;
- End-tidal carbon dioxide monitor;
  - quantitative
  - qualitative.

Major Competency Area: **A** **Core Knowledge**	Priority: **Three**

Competency: **A-8**

A-8 Knowledge of EMS Systems and Health Care

A Paramedic will:

A-8-1 **Outline key historical events that influenced the development of the EMS profession.**

A-8-2 **Differentiate among the three identified levels of care: EMR, EMT, and EMT-P.**

A-8-3 **Identify various models for EMS delivery in the Province of Alberta.**

A-8-4 **List and define the components of an EMS system.**

A-8-5 **Discuss the responsibilities of the physician medical director regarding on-line and off-line medical control.**

A-8-6 **Describe public involvement in an EMS system, with regard to system access, recognition of an emergency, and initiation of basic life support.**

A-8-7 **Describe the use of patient transfer protocols for ground and air transport services.**

A-8-8 **Describe the categorization of receiving facilities and explain how the coordination of resources is attained.**

A-8-9 **Outline the various designs and financing methods for an EMS system.**

Major Competency Area: **A** **Core Knowledge**	Priority: **Two**

Competency: **A-9**

A-9 Knowledge of EMS Resources

A Paramedic will:

A-9-1 **Identify various resources that may assist the EMS system:**

- Fire Department;
- Specialized rescue;
- Hazardous Materials Teams;
- Law Enforcement;
- Utilities/Public Works;
- Crisis Intervention Professionals;
- Community response agencies;
- Military;
- Emergency Management Alberta;
- Industrial / Industry.

A-9-2 **Identify the components of mutual aid and contractual service agreements.**

A-9-3 **Identify the components of mass-casualty or disaster plans.**

Major Competency Area: **A** **Core Knowledge**	Priority: **Three**

Competency: **A-10**

A-10 Knowledge of Critical Incident Stress Management

A Paramedic will:

A-10-1 **Define stress and outline the phases of the stress response.**

A-10-2 **Differentiate between normal and detrimental reactions to anxiety and stress:**
- Physical;
- Cognitive;
- Behavioural.

A-10-3 **Describe the management of patients, family members, and bystanders who are encountering a stressful situation.**

A-10-4 **List situations that may provoke job stress.**

A-10-5 **Describe stress-management techniques.**

A-10-6 **Identify various defense mechanisms.**

A-10-7 **Recognize the stages of grief that a patient or significant other may experience during death or dying.**

A-10-8 **Describe the purpose of Critical Incident Stress Management (CISM).**

A-10-9 **Describe appropriate ways to help the patient, family, or significant other deal with a situation in which death is imminent or has occurred.**

A-10-10 **Describe the special needs of children related to their understanding of death and dying.**

Major Competency Area: **A** **Core Knowledge**	Priority: **Two**

Competency: **A-11**

A-11 Knowledge of Medical-Legal Issues

A Paramedic will:

A-11-1 Describe the two categories of law in Canada.

A-11-2 Define common medical-legal terms that apply to situations involving patient care:
- Tort;
- Negligence;
- Duty to act;
- Abandonment;
- False imprisonment;
- Slander;
- Libel;
- Assault;
- Battery.

A-11-3 List situations legally required to report.

A-11-4 Discuss the concept of "standard of care".

A-11-5 List and define the four components required to prove negligence.

A-11-6 Discuss the types of consent: expressed or implied.

A-11-7 Describe the process for obtaining consent.

A-11-8 Define the term "informed consent" and relate it to provision of care.

A-11-9 Discuss the importance of the medical record.

A-11-10 List several methods of risk management.

A-11-11 Describe responsibilities to maintain patient confidentiality:
- Understand legal ramifications associated with breech of confidentiality.

A-11-12 Describe actions to be taken in a refusal-of-care situation:
- Understand legal ramifications associated with refusal of care situations and appropriate documentation.

Major Competency Area: **B** **B. Safety**	Priority: **One**

Competency: **B-1**

B-1 Create and Maintain a Safe Work Environment

A Paramedic will:

B-1-1 **Demonstrate knowledge of a safe work environment:**

- Secure access to work environment;
- Fire alarms, extinguishers and exits;
- Spill kits;
- Eye wash stations;
- Communication devices ;
- Signage, i.e. ;
  - wet floor
  - uneven surface
  - emergency power.

Major Competency Area: **B** **Safety**	Priority: Two

Competency: **B-2**

B-2 Ability to Operate a Vehicle

A Paramedic will:

B-2-1 Demonstrate knowledge and ability to perform a vehicle safety check:

- Tires;
  - cuts
  - wear bars
  - stone bruises
  - inflation
- Engine compartment;
  - fluids
    - antifreeze
    - power steering
    - oil
    - washer
    - transmission
    - brake
    - leaks
  - battery
    - corrosion
    - secured
  - belt(s)
    - cracks
    - wear
    - tension
  - hose(s)
    - condition
    - leaks
- Vehicle exterior;
  - physical damage
  - lighting
    - clearance lights

A Paramedic will:

B-2-1 Demonstrate knowledge and ability to perform a vehicle safety check:

- Vehicle exterior lighting (continued);
  - brake lights
  - signal lights
  - head lights
  - tail lights
  - reverse lights
  - emergency lights
    - four way flasher
    - light bar
    - flashers (primary/secondary)
    - scene lights
  - doors
    - compartments
    - patient loading
    - side
    - driver / passenger
  - wiper blades
- Vehicle interior;
  - cab
    - set mirrors
    - safety belts
    - horn / siren
    - back up alarm
    - gauges
      - fuel
      - oil
      - voltage / amp
      - air
      - temperature
  - seats
  - windows and locks
  - check communication equipment
    - two-way radio
    - cellular phone
    - Global Positioning System (GPS)
    - pagers
    - laptop computers

A Paramedic will:

B-2-1 Demonstrate knowledge and ability to perform a routine vehicle safety check (continued):

- Cab (continued);
  - master power
  - environmental system
    - heating
    - air conditioning
  - other
    - maps
    - hazardous material references
    - portable radio
    - fuel card
    - flashlights
    - insurance / registration
    - secure loose items
  - patient compartment
    - stretcher and mount
    - on-board suction
    - main oxygen system
    - lighting
    - heating / air conditioning
    - restraining devices
      - safety nets
      - seat belts
      - child car seats
      - stretcher restraints
    - portable equipment secured
    - cabinet doors secured.

B-2-2 Rolling Check:

- Transmission;
- Steering;
- Braking;
  - antilock braking system (ABS)
- Acceleration / throttle;

Competency: **B-2** **Ability to Operate a Vehicle**	Page: 4

A Paramedic will:

B-2-3 Driving techniques:

- Routine;
  - acceleration
  - braking
  - steering
- Emergency;
  - acceleration
  - braking
  - steering
- Driving elements;
  - rain
  - snow
  - ice
  - wind
  - surface
  - sun
  - night
  - day
  - traffic
  - passengers / pedestrians
  - patients
  - wildlife
- Collision avoidance ;
  - evasive maneuvers
  - driving tactics
  - risk management program
  - staging of vehicles

Competency: **B-2** **Ability to Operate a Vehicle**	Page: 5

A Paramedic will:

B-2-4 Demonstrate knowledge of driving theory and human factors:

- Fatigue ;
- Vision ;
  - colour perception
  - blind spot
  - night vision
  - peripheral vision
- Emotional control
- Signaling devices
- Risk management.

B-2-5 Demonstrate understanding of the causes of vehicle collisions.

B-2-6 Maintain appropriate Alberta Driver's License if working for an ambulance service.

Major Competency Area: **B** **Safety**	Priority: **One**

Competency: **B-3**

B-3 Knowledge of Personal Protection Equipment

A Paramedic will:

B-3-1 **Demonstrate knowledge and ability to use personal protection equipment while interacting and providing patient care:**

- Gloves;
- Masks;
- Face shields;
- Ear protection;
- Gowns and aprons;
- Footwear;
- Appropriate clothing;
  - reflective
  - seasonal
  - turn-out gear
- Head gear;
- Body armor;
- Safety glasses.

B-3-2 **Demonstrate knowledge and ability to use protective equipment, such as:**

- Biochemical waste disposal;
- Eye wash stations;
- Fire extinguishers;
- Sharps containers;
- Spill kits.

Major Competency Area: **B** **Safety**	Priority: **One**

Competency: **B-4**

B-4 Ability to Assess Scene Safety

A Paramedic will:

B-4-1 **Demonstrate knowledge and ability to perform scene assessment:**

- Analyze dispatch information;
- Prior to entering scene;
  - power lines
  - fire or threat of fire
  - hazardous fluid / material spills / toxic gases
  - explosion or threat of explosion (primary or secondary)
  - possible structure / area collapse
  - violence or crime
    - animals
    - patient
    - bystanders
    - weapons
    - hostage
  - presence of other emergency agencies
  - environment
    - heat
    - cold
    - low oxygen
    - wind
    - rain
    - snow
  - traffic
  - assess need for additional resources
- Entering scene;
  - approach cautiously
  - plan egress route
    - vehicle
    - personal

A Paramedic will:

B-4-1 **Demonstrate knowledge and ability to perform scene assessment (continued):**

- On scene;
  - body fluids
- Emotional state of patient and bystanders;
- Take precautions to preserve evidence or record location prior to disturbing the area;
- Leaving scene;
  - remove bio-hazard materials
  - sharps
  - equipment
  - necessary personal items.

Major Competency Area: **B** **Safety**	Priority: **One**

Competency: **B-5**

B-5 Practice Safe Lifting and Moving Techniques

A Paramedic will:

B-5-1 **Demonstrate proper body mechanics:**

- Body alignment;
- Body balance;
- Base of support;
- Centre of gravity;
- Coordinated body movement;
  - self
  - partner(s)
- Communication with partner.

B-5-2 **Demonstrate awareness of potential injuries from poor biomechanics.**

Major Competency Area: **B** **Safety**	Priority: **Two**

Competency: **B-6**

B-6 Knowledge of Basic Extrication Principles

A Paramedic will:

B-6-1 **Demonstrate knowledge of extrication principles:**

- Vehicles;
- Assess need for resources;
  - heavy rescue
  - confined space
  - trench
  - high angle
  - dive / aquatic
- Assess need for rapid extrication;
- Assess need for protection;
  - self
  - partner
  - patient
  - bystanders.

Major Competency Area: **B** **Safety**	Priority: **Two**

Competency: **B-7**

B-7 Identify and Resolve Potential Occupational Hazards

A Paramedic will:

B-7-1 Demonstrate knowledge and ability to recognize:

- When Occupational Health and Safety (OH&S) is required;
  - notification
  - documentation
- Potential hazards of industry;
  - construction
  - petroleum
  - manufacturing
  - agriculture
  - transportation
  - forestry
- When Worker's Compensation Board is required;
  - notification
  - documentation

B-7-2 Demonstrate knowledge of Material Safety Data Sheets (MSDS)

B-7-3 Knowledge of Hazmat Life Support

Major Competency Area: **B** **Safety**	Priority: **One**

Competency: **B-8**

B-8 Apply Infection Control Precautions

A Paramedic will:

B-8-1 **Demonstrate knowledge and ability to use aseptic technique.**

B-8-2 **Demonstrate knowledge of elements of infection control:**

- The infection agent – pathogen;
- Reservoir - pathogen environment;
- Exit from reservoir – vector;
- Transportation (exudate, feces, and needle);
- Entrance (skin, mucous lining or mouth);
- Host (human or animal).

B-8-3 **Demonstrate ability to establish isolation / reverse isolation procedures:**

- Appropriate protection of self / patient;
- Disposal of utensils, supplies and waste;
- Proper handling of equipment;
- Explanation to patients.

Major Competency Area: **B** **Safety**	Priority: **Two**

Competency: **B-9**

B-9 Clean and Disinfect Equipment

A Paramedic will:

B-9-1 **Demonstrate knowledge and ability to properly clean, disinfect or sterilize contaminated equipment:**

- Clean visible spills of body fluid;
- Disinfect reusable patient care equipment;
  - low level disinfection for routine housekeeping
  - intermediate level disinfection for surfaces which contact skin
  - high level disinfection for reusable instruments that come into contact with mucous membranes
  - sterile equipment that will be used invasively
- Launder soiled clothing and linen;
- Disposal of infectious waste.

Major Competency Area: **B** **Safety**	Priority: **Two**

Competency: **B-10**

B-10 Knowledge and Practice of WHMIS Regulation

A Paramedic will:

B-10-1 Demonstrate knowledge and ability to apply Workplace Hazardous Materials Information System (WHMIS) guidelines and regulations, such as:

- Location of material safety data sheets;
- Recognition of symbols;
- Appropriate labeling criteria;
- Appropriate packaging of material;
- Appropriate documentation for disposal.

Major Competency Area: **C** **C. Communications and Interpersonal Skills**	Priority: **One**

Competency: **C-1**

C-1 Communicate Effectively

A Paramedic will:

C-1-1 Demonstrate knowledge of environmental impact:

- Location;
- Bystanders.

C-1-2 Demonstrate observation skills by monitoring:

- Patients activity level;
- Physical appearance;
- Body posture;
- Motor activity;
- Verbal interactions.

C-1-3 Establish effective therapeutic relationships using communication techniques:

- Know the concepts within basic communications;
  - feedback
  - non-verbal communications
  - verbal communication
- Identify the common goals of communication;
  - direct
  - entertain
  - explain
  - inform
  - persuade
  - problem solve
- Identify the elements of the communication process;
  - feedback
  - listening
  - message
  - receiver
  - response
  - sender

A Paramedic will:

C-1-3 Establish effective therapeutic relationships using communication techniques (continued):

- Identify the components of non-verbal communication when interacting with patients, families, and co-workers;
  - eye contact
  - facial expressions
  - gait
  - gestures
  - posture
  - sign language
  - touch
- Identify the components of verbal communications;
  - listening
  - oral
  - pattern of speech
  - tone of voice
  - appropriate language use
- Identify the influence of common factors on the communication process;
  - culture
  - emotion
  - environment
  - language
  - perception
  - physical
  - psychological
  - religion
  - social
  - special needs
  - stress
- Describe the importance of self-awareness to effective communications;
- Describe the importance of feedback to effective communications;
- Describe the role of effective communications in establishing, maintaining and closing interpersonal relationships;
- Describe how the communication process is used.

A Paramedic will:

C-1-4 **Demonstrate ability to identify barriers to effective communication with all age groups:**

- Language / socio-cultural;
- Time;
- Personal space;
- Environment;
- Cognitive abilities;
- Education.

C-1-5 **Demonstrate the ability to identify the effects of communication techniques which inhibit the interaction or the relationship:**

- Advice giving;
- Challenging;
- Defensiveness;
- Making judgments;
- Probing;
- Rejecting;
- Stereotyping;
- Testing.

C-1-6 **Have a knowledge of self:**

- Personal biases;
- Boundaries; personal and professional;
- Personal limitations.

C-1-7 **Utilizes communication and team building skills to facilitate peer consultation within the health care team and allied services:**

- Identifies functions competently as a member of an interdisciplinary team;
- Identifies relationship of own role to the health care system;
- Assumes required leadership roles;
    - identifies own role and roles of other team members in the local community
    - uses appropriate communication channels
    - demonstrates respect for colleagues

A Paramedic will:

C-1-7 Utilizes communication and team building skills to facilitate peer consultation within the health care team (continued):

- Identifies programs that meet the community's mental health needs;
- Identifies components of health care system;
- Identifies role of employing agency in the health care system;
- Identifies own role in relation to employing agency;
- Describes expectations of leadership roles in employing agency;
- Identifies appropriate situations for assuming leadership role;
- Demonstrates ability to supervise other staff as appropriate.

C-1-8 Describe the purpose and use of common communication devices:

- Braille;
- Computers;
- Hearing aids;
- Picture boards;
- Telephone / cell phone / pagers;
- Sign language.

C-1-9 Demonstrate patient care of the highest calibre through interactions with patients, co-workers and allied health care workers.

Major Competency Area: **C** **Communications and Interpersonal Skills**	Priority: **One**

Competency: **C-2**

C-2 Assess and Control Situations

A Paramedic will:

C-2-1 **Demonstrate the knowledge and ability to identify the signs and symptoms of common conflicts:**

- Frustration;
- Anger;
- Confusion;
- Emotional outbursts.

C-2-2 **Demonstrate the knowledge and ability to recognize the common sources of conflict:**

- Beliefs, values, biases;
- Individual differences;
- Expectations;
- Professional roles and beliefs;
- Financial concerns;
- Religion;
- Politics;
- Sexual orientation;
- Gender.

C-2-3 **Demonstrate the ability to intervene only in those conflicts that have a direct effect on patient care.**

C-2-4 **Demonstrate the knowledge and ability to report conflicts to supervisor.**

C-2-5 **Demonstrate the ability to manage the conflict by using effective communication techniques to:**

- Include all involved in conflict;
- Separate fact from fiction;
- Seek ideas / suggestions for resolution;
- Select agreed upon solution;
- Establish measures of success.

Major Competency Area: **C** **Communications and Interpersonal Skills**	Priority: **Two**

Competency: **C-3**

C-3 Operate Communication Devices

A Paramedic will:

C-3-1 Demonstrate knowledge and / or the ability to operate an emergency communication system:

- Radio;
  - base station
  - mobile transmitter / receivers
  - portable transmitter / receivers
  - repeaters
- Cellular phones;
- Pagers;
- Automated vehicle locators;
- Satellite phones;
- Telephone device for hearing impaired (tty);
- Fax;
- Landline phones;
- Computer.

Major Competency Area: **C** **Communications and Interpersonal Skills**	Priority: **Three**

Competency: **C-4**

C-4 Knowledge of Medical Dispatch

A Paramedic will:

C-4-1 **Demonstrate knowledge and ability to understand the concepts of a medical dispatch system:**

- Criteria based medical dispatch;
- 9-1-1 call answer;
- Computer aided dispatch systems.

Major Competency Area: **C** **Communications and Interpersonal Skills**	Priority: **Three**

Competency: **C-5**

C-5 Knowledge of Cultural Diversity

A Paramedic will:

C-5-1 **Demonstrate knowledge of cultural diversity:**

- Ethnic groups;
- Religious beliefs;
- Personal beliefs;
- Social background;
- Economic background.

Major Competency Area: **C** **Communications and Interpersonal Skills**	Priority: **Three**

Competency: **C-6**

C-6 Awareness of Patients Special Needs

A Paramedic will:

C-6-1 **Demonstrate the knowledge and ability to adapt communication methods for special needs patients:**

- Neonatal;
- Pediatric;
- Obstetric;
- Geriatric;
- Hearing impaired;
- Visually impaired;
- Mentally / physically challenged.

Major Competency Area: **C** **Communications and Interpersonal Skills**	Priority: **One**

Competency: **C-7**

C-7 Demonstrate Documentation and Reporting Skills

A Paramedic will:

C-7-1 Demonstrate the knowledge and ability to document and report patient care by:

- Recording observations and actions in a timely manner;
- Using appropriate medical terminology;
- Maintaining accurate records;
- Following agency policies / procedures;
- Identifying and using appropriate lines of authority and communication;
- Participating in the orientation and supervision of new staff;
- Using effective time management skills;
- Functioning cooperatively as a member of a multidisciplinary team;
- Directing and coordinating actions of others in emergency situations;
- Documenting and reporting high risk and / or potential legal situation;
    - substance abuse
    - suicidal risk
    - homicidal risk
    - medical conditions
    - resuscitation categories / personal directive
    - physical abuse
    - sexual abuse
    - elder abuse
    - child maltreatment
    - verbal abuse
- 24 hour clock;
- Metric system;
- Unusual incidents (occurrence) and follow-up;
    - weapons
    - volatile situations
    - Response to treatment.

A Paramedic will:

C-7-2 **Demonstrate the ability to follow appropriate documentation procedures to ensure accurate, complete and quality documentation for the purpose of:**

- Audit;
- Education;
- Quality assurance monitoring;
- Research;
  - patient outcome
- Statistics;
- Risk management;
- Response to treatment.

Major Competency Area: **D** **D. Patient Assessment**	Priority: **One**

Competency: **D-1**

D-1 Perform Primary Survey

A Paramedic will:

D-1-1 **Perform a primary survey:**

- Scene survey;
- Mechanism of injury;
- Chief complaint;
- Level of consciousness;
- Spinal precautions;
- Airway;
  - patency
- Breathing;
  - adequacy
- Circulation;
  - perfusion assessment
  - bleeding
  - skin condition
- Physical assessment;
  - head
  - neck
  - chest
  - abdomen
  - pelvis
  - extremities
  - back
- Transport decision.

Major Competency Area: **D** **Patient Assessment**	Priority: **One**

Competency: **D-2**

D-2 History Gathering

A Paramedic will:

D-2-1 **Evaluate a chief complaint including as a minimum:**

- Onset;
- Provocation;
- Quality;
- Radiation / region;
- Severity;
- Time;
- Associated symptoms.

D-2-2 **Obtain a patient history including as a minimum:**

- Allergies;
- Medications;
- Past medical history;
- Last meal;
- Events preceding.

D-2-3 **Demonstrate the ability to obtain a general and focused history.**

Major Competency Area: **D** **Patient Assessment**	Priority: **One**

Competency: **D-3**

D-3 Perform Secondary Survey

A Paramedic will:

D-3-1 Perform a secondary survey:

- Vital signs;
  - pulse
  - respirations
  - blood pressure
  - temperature
  - pulse oxymetry
  - blood glucose level (BGL)
  - end-tidal carbon dioxide
  - cardiac rhythm
- Physical assessment;
  - head
  - neck
  - chest
  - abdomen
  - pelvis
  - extremities
  - back.

Major Competency Area: **D** **Patient Assessment**	Priority: **Two**

Competency: **D-4**

D-4 Perform Obstetrical Assessment

A Paramedic will:

D-4-1 **Demonstrate knowledge and identify the components of an obstetrical assessment, including but not limited to:**

- Multiparity;
- Estimated date of confinement;
- Last normal menstrual period;
- Meconium staining;
- Bleeding;
- Mucous plug;
- Membranes ruptured;
- Pre-natal care;
- Presence of contractions;
  - onset
  - frequency
  - duration
  - strength
- Para / gravida;
- Maternal medications;
- Maternal risk factors.
- Knowledge of intrapartum assessment

D-4-2 **Demonstrate knowledge and obtain an obstetrical assessment, including, but not limited to:**

- Fetal heart monitoring;
- Visual examination;
  - crowning
  - show
  - membranes (intact / ruptured)
  - meconium staining.
  - Nuchal cord;
  - Prolapsed cord

D-4-3 Repealed (January 2007)

Major Competency Area: **D** **Patient Assessment**	Priority: **One**

Competency: **D-5**

D-5 Perform Neonatal Assessment

A Paramedic will:

D-5-1 **Perform a neonatal history:**

- Pre-natal care;
- Delivery complications;
- Gestational age;
- APGAR scores.

D-5-2 **Perform a neonatal assessment:**

- Assess resuscitative efforts;
- APGAR score;
  - taken at 1 minute and 5 minutes after birth
  - scoring criteria
    - Appearance
    - Pulse
    - Grimace
    - Activity
    - Respirations.

D-5-3 **Demonstrate knowledge of neonatal resuscitation.**

Major Competency Area: **D** **Patient Assessment**	Priority: **One**

Competency: **D-6**

D-6 Perform Pediatric Assessment

A Paramedic will:

D-6-1 Adapt approach to patient:
- Infant;
- Toddler;
- Child;
- Adolescent.

D-6-2 Adapt physical assessment to patient:
- Growth and developmental characteristics.
- Differences in vial signs

D-6-3 Adapt patient history gathering techniques to patient.

D-6-4 Demonstrate knowledge of the pediatric assessment triangle (PAT)

Major Competency Area: **D** **Patient Assessment**	Priority: **One**

Competency: **D-7**

D-7 Perform Geriatric Assessment

A Paramedic will:

D-7-1 **Adapt approach to patient.**

D-7-2 **Identify the components of a geriatric assessment, including but not limited to:**
- System pathophysiology and organ system decline.

D-7-3 **Adapt physical assessment to patient considering the changes that occur due to the aging process.**

D-7-4 **Adapt history gathering techniques to patient.**

Major Competency Area: **D** **Patient Assessment**	Priority: **One**

Competency: **D-8**

D-8 Perform Psychological/Behavioural Assessment

A Paramedic will:

D-8-1 Demonstrate knowledge of psychological / behavioural events, including, but not limited to:

- Psychiatric emergencies;
- Suicide;
- Death and dying;
- Sexual assault;
- Child maltreatment.

D-8-2 Define the term crisis and define why stress is different from a crisis.

D-8-3 Describe the characteristics of a crisis.

D-8-4 Describe the stages / phases of a crisis:

- Pre-crisis phase;
- Impact phase;
- Crisis phase;
- Resolution phase;
- Post-crisis phase.

D-8-5 Demonstrate the ability to implement an organized and systematic approach to a patient experiencing psychological or behavioural emergency.

D-8-6 Demonstrate the ability to control a situation while performing an assessment:

- Ensure safety of self/team;
- Ensure safety of patient;
- Apply restraint techniques;
  - physical
  - chemical
- Bystander control.

A Paramedic will:

D-8-7 **Describe the "Dual Action Approach":**

- **A**ssess;
- **C**ontrol;
- **T**reat;
- **I**nform;
- **O**kay;
- **N**otate;

- **A**ttitudes;
- **C**oncern;
- **T**hinking ability;
- **I**nteractions;
- **O**bjectivity;
- **N**eeds.

D-8-8 **Describe communication techniques used in managing a patient presenting with a crisis:**

- Interviewing techniques;
  - Position
  - Posture
  - Observe
  - Listen
- Empathic attitude;
  - Reflecting
- Adapt specific communication based upon age.

Major Competency Area: **E** **E. Ability to Perform Patient Systems Assessment**	Priority: **One**

Competency: **E-1**

E-1 Perform Neurological Assessment

A Paramedic will:

E-1-1 Demonstrate knowledge and ability to assess the level of consciousness:

- AVPU;
  - Alert
  - Verbal
  - Painful
  - Unresponsive
- Person;
- Place;
- Time;
- Event.

E-1-2 Demonstrate knowledge and ability to assess the patient by using, but not limited to, the acronym:

- AEIOU TIPS;
  - alcohol, apnea, anaphylaxis
  - epilepsy, environmental (heat / cold)
  - insulin (diabetes)
  - overdose
  - uremia
  - trauma
  - infection
  - psychiatric, poisoning
  - stroke, shock.

E-1-3 Demonstrate knowledge and ability to use a cerebral vascular accident assessment scale:

- Cincinnati Stroke Scale.

E-1-4 Demonstrate knowledge and ability to assess cranial and spinal nerves.

Major Competency Area: **E** **Ability to Perform** **Patient Systems Assessment**	Priority: **One**

Competency: **E-2**

E-2 Perform Respiratory Assessment

A Paramedic will:

E-2-1 Demonstrate knowledge and ability to visually assess the chest:

- Chest shape and scarring;
- Identify rate, quality and depth of respiration;
- Identify equal bilateral chest expansion;
- Identify accessory muscle use;
- Identify tracheal tug / tracheal deviation / intercostal indrawing.

E-2-2 Demonstrate knowledge and ability to identify abnormal sounds of breathing:

- Stridor;
- Snoring;
- Gurgles.

E-2-3 Demonstrate knowledge and ability to identify breath sounds via auscultation:

- Of the lung fields;
  - apices / bases
  - bilateral
  - anterior / posterior
- Normal breath sounds;
  - vesicular
  - bronchiovesicular
  - bronchial
  - tracheal
- Adventitious sounds;
  - wheezes
  - crackles
- Inspiratory / expiratory ratio.

E-2-4 Demonstrate knowledge and ability to palpate the chest:

- Identify fractures, flail segments, subcutaneous emphysema.

A Paramedic will:

E-2-5 Demonstrate knowledge and ability to percuss:

- Resonance
  - hyper-resonance
  - dullness
  - tympany

Major Competency Area: **E** **Ability to Perform** **Patient Systems Assessment**	Priority: **One**

Competency: **E-3**

E-3 Perform Cardiovascular Assessment

A Paramedic will:

E-3-1 **Demonstrate knowledge and ability to identify rate, rhythm, and quality of pulses:**
- Central;
- Peripheral.

E-3-2 **Demonstrate knowledge and ability to identify jugular venous distention (JVD) and abdomino-jugular reflex.**

E-3-3 **Demonstrate knowledge and ability to consider a differential diagnosis of chest pain, including, but not limited to:**
- Angina;
- Myocardial infarction;
- Pleurisy;
- Pneumonia;
- Pulmonary embolism;
- Aortic aneurysm;
- Chest wall;
- Congestive heart failure;
- Pulmonary edema;
- Thoracic trauma.

E-3-4 **Demonstrate knowledge and ability to identify cardiac rhythms:**
- Twelve / fifteen lead interpretation.

E-3-5 **Demonstrate knowledge and ability to identify signs and symptoms of shock:**
- Hypovolemic;
- Cardiogenic;
- Neurogenic;
- Septic;
- Anaphylactic;
- Metabolic.

A Paramedic will:

E-3-6 Demonstrate knowledge and ability to identify peripheral edema:

- Pitting;
- Non-pitting.

E-3-7 Demonstrate knowledge and ability to identify heart sounds.

Major Competency Area: **E** **Ability to Perform** **Patient Systems Assessment**	Priority: **Two**

Competency: **E-4**

E-4 Perform Gastrointestinal / Genitourinary Assessment

A Paramedic will:

E-4-1 **Demonstrate knowledge and ability to assess abdomen:**
- Distention;
- Trauma;
- Scars / needle marks;
- Pulsating masses.

E-4-2 **Demonstrate knowledge and ability to consider a differential diagnosis of abdominal pain:**
- Location;
- Strength;
- Radiation;
- Mechanism.

E-4-3 **Demonstrate knowledge and ability to assess bowel sounds.**

E-4-4 **Demonstrate knowledge and ability to interpret visual findings and abnormalities of:**
- Emesis;
- Stools;
- Urine.

E-4-5 **Demonstrate the knowledge and ability to palpate the abdomen:**
- Rigidity;
- Guarding;
- Pulsating masses / tenderness;
- Rebound tenderness.

E-4-6 **Demonstrate knowledge and ability to identify trauma / medical complications of pregnancy.**

E-4-7 **Demonstrate knowledge and ability to identify trauma / medical complications of male / female genitalia.**

Major Competency Area: **E** **Ability to Perform** **Patient Systems Assessment**	Priority: **Two**

Competency: **E-5**

E-5 Perform Integumentary Assessment

A Paramedic will:

E-5-1 Demonstrate knowledge and ability to interpret skin color, condition and temperature.

E-5-2 Demonstrate knowledge and ability to interpret burns by degree and rule of nines:
- Adult;
- Pediatric.

E-5-3 Demonstrate knowledge and ability to identify causes of burns:
- Thermal;
- Chemical;
- Radiation;
- Electrical.

E-5-4 Demonstrate knowledge and ability to identify abnormalities in the integumentary system:
- Anatomical location and distribution;
- Lesions;
- Urticaria;
- Parasitic infestations;
- Soft tissue injuries.

Major Competency Area: **E**

Ability to Perform
Patient Systems Assessment

Priority: **One**

Competency: **E-6**

E-6 Perform Musculoskeletal Assessment

A Paramedic will:

E-6-1 Demonstrate knowledge and ability to assess limitations to the range of motion and instability.

E-6-2 Demonstrate knowledge and ability to identify swelling, tenderness, inflammation, pain, crepitus, and deformity.

E-6-3 Demonstrate knowledge and ability to identify motor and sensory function:
- Symmetry;
- Compartment syndrome.

E-6-4 Demonstrate knowledge and ability to identify open and closed fractures.

Major Competency Area: **F** **F. Perform and Interpret Diagnostic Testing**	Priority: **One**

Competency: **F-1**

F-1 Perform Vital Signs

A Paramedic will:

F-1-1 Perform and interpret:

- Respiration;
  - rate
  - quality
  - rhythm
- Pulse (presence, rate, pattern);
  - carotid
  - brachial
  - apical
  - radial
  - femoral
  - popliteal
  - ulnar
  - dorsalis pedis
  - posterior tibialis
- Blood pressure;
  - auscultation
  - palpation
  - Doppler
  - pulse pressure
  - mean arterial pressure (MAP)
- Temperature;
  - oral
  - rectal
  - tympanic
  - axilla
  - dermal sensor
  - esophageal.

Major Competency Area: **F** **Perform and Interpret Diagnostic Testing**	Priority: **One**

Competency: **F-2**

F-2 Perform Oximetry Testing

A Paramedic will:

F-2-1 Demonstrate knowledge of inclusion criteria:

- Altered mental status;
- Hemodynamic instability;
- Priority symptoms;
- History of cardiac / pulmonary disease;
- Use of sedative / narcotic drugs, etc.

F-2-2 Demonstrate knowledge of pulse oximetry technology.

F-2-3 Demonstrate knowledge of limitations:

- Environmental;
  - large amounts of ambient light interference
- Equipment;
  - optical shunt
    - using improper size sensor for patient, improper sensor positioning, patient movements
  - electrical interference
  - motion / artifact
- Patient influences;
  - cold extremities
  - peripheral vaso-constriction
  - impeded venous return
  - blood pressure cuff / tourniquet
  - hemodynamic compromise
  - poor peripheral circulation
- Edema;
- Movement;
- Clenched fists or hypertonicity of arm muscles;
- Dysfunctional hemoglobin (Hb);
  - carbon monoxide poisoning
  - anemia
- Dark nail polish;
- Medications.

A Paramedic will:

F-2-4 **Demonstrate knowledge to record and interpret:**

- Record time;
- Location of pulse;
- Reading on room air vs. Supplemental oxygen;
- Compare saturation levels to patients condition and treatment.

Major Competency Area: **F** **Perform and Interpret Diagnostic Testing**	Priority: **One**

Competency: **F-3**

F-3 Perform Glucometric Testing

A Paramedic will:

F-3-1 Perform glucometric testing by:

- Select and prepare site for sample;
- Lance;
- Obtain capillary blood sample.

F-3-2 Interpret findings:

- Normal blood glucose values;
- Hypoglycemia blood glucose values;
- Hyperglycemia blood glucose values.

F-3-3 Demonstrate knowledge, ability and understanding of glucometer testing equipment and sources of error.

Major Competency Area: **F** **Perform and Interpret Diagnostic Testing**	Priority: **One**

Competency: **F-4**

F-4 Perform Cardiac Monitoring

A Paramedic will:

F-4-1 Perform cardiac monitoring:

- Understand the requirements for electrocardiograph (ECG) monitoring in a patient suspicious of acute coronary syndrome.

F-4-2 Perform correct placement of 3 or 4 electrode patient leads:

- Understand the relationship between positive and negative electrode in each limb lead.

F-4-3 Perform proper positioning of patient.

F-4-4 Perform electrocardiograph (ECG):

- Identify;
  - rate
  - rhythm
  - P wave
  - Q wave
  - R wave
  - S wave
  - J point
  - T wave
  - U wave
  - PRI interval (PRI)
  - QRS complex duration
  - ST segment
  - QT interval.

F-4-5 Understand the relationship between time and voltage.

A Paramedic will:

F-4-6 Recognize the following ECG patterns:

- Sinus rhythm;
- Sinus tachycardia;
- Sinus bradycardia;
- Sinus dysrhythmia;
- First degree atrioventricular block (1^0 AVB);
- Second degree atrioventricular block Type I (2^0 AVB Type I);
- Second degree atrioventricular block Type II (2^O AVB Type II);
- Third degree atrioventricular block (3^O AVB);
- Junctional escape rhythm;
- Accelerated junctional rhythm;
- Junctional tachycardia;
- Paroxysmal supraventricular tachycardia;
- Premature atrial complex;
- Premature junctional complex;
- Premature ventricular complex;
  - uniform
  - multiform
  - R on T phenomenon
  - bigeminy
  - trigeminy
  - couplets
  - salvos
- Ventricular escape rhythm;
- Accelerated ventricular rhythm;
- Ventricular tachycardia ;
- Torsades de pointes ;
- Atrial fibrillation ;
- Atrial flutter ;
- Atrial tachycardia ;
- Ventricular fibrillation ;
- Asystole;
- Paced rhythm;
- Artifact / interference.

A Paramedic will:

F-4-7 Perform 12/15 lead ECG interpretation:

- Correct anatomical placement of chest lead electrodes;
- Acquire and interpret ECG;
  - rate
  - rhythm
  - axis
  - P wave
  - PRI
  - Q wave
  - QRS complex
  - R wave progression
  - T/ST segment
- Understand the clinical significance of Bundle Branch Block (BBB);
  - affects reliability of ST elevation
  - increases mortality
  - increases risk of cardiogenic shock
  - identify left and right BBB
- Awareness of other causes of ST elevation;
  - early repolarization
  - pericarditis
  - left ventricular hypertrophy (LVH)
  - hypothermia
  - left BBB
  - metabolic imbalances
- Understand lead placement for;
  - V_3R
  - V_4R
  - V_5R
  - V_6R
  - V7
  - V8
  - V9
  - Lead I, II, III
  - aVF, aVR, aVL
  - V_1, V_2, V_3, V_4, V_5, V_6

A Paramedic will:

F-4-7 Perform 12/15 lead ECG interpretation (continued):

- Understand evolution of myocardial infarction (MI) and it's effects on wave forms;
  - pre-event phase
  - normal ECG
  - hyperacute phase
  - tall T waves
  - acute phase
    - ST elevation
    - T wave inversion
    - development of pathological Q wave
  - recovery phase
  - Q wave remains ST segment returns to normal
- Understanding of accessory pathways disease;
  - Wolff-Parkinson-White syndrome (WPW)
  - Lown, Ganong and Levine syndrome (LGL)
- Localizing site of infarction;
  - inferior
    - lead II
    - lead III
    - aVF
    - septal
    - V_1
    - V_2
  - anterior
    - V_3
    - V_4
  - lateral
    - V_5
    - V_6
    - Lead I
    - aVL
  - posterior
    - V_8
    - V_9
  - right ventricle
    - V_3 R
    - V_4 R
    - V_5 R.

Major Competency Area: **F** **Perform and Interpret Diagnostic Testing**	Priority: **One**

Competency: **F-5**

F-5 Perform End-Tidal CO_2 Monitoring / Capnography

A Paramedic will:

F-5-1 **Demonstrate an understanding and knowledge of the equipment.**

F-5-2 **Demonstrate the ability to monitor carbon dioxide levels during spontaneous respiration and manual ventilation.**

F-5-3 **Recognize quantitative correlation of treatments to changes in $ETCO_2$ values (i.e. shows effectiveness of suction).**

F-5-4 **Recognize abrupt changes in $ETCO_2$ (End Tidal CO_2) values (i.e. return of spontaneous circulation during CPR).**

F-5-5 **Recognize increasing, decreasing, or steady-state $ETCO_2$ trends over time (i.e. used as an indicator for need to suction).**

F-5-6 **Recognize waveform pattern changes in response to altered conditions (i.e. normal vs. constrictive airways due to asthma).**

F-5-7 **Demonstrate the ability to assess for proper endotracheal (ET) tube position during initial placement.**

F-5-8 **Demonstrate the ability to monitor for continuity of ET tube placement.**

F-5-9 **Demonstrate the ability to assess dynamic cardiopulmonary status:**

- Establishing baseline $ETCO_2$ values and capnograms;
- Determining arterial to end-tidal difference for CO_2 concentration;
- Assessing changes in $ETCO_2$ values and / or capnograms in response to changes in ventilators settings or changes.

Major Competency Area: **F**

Perform and Interpret Diagnostic Testing

Priority: **Two**

Competency: **F-6**

F-6 Obtain Venous Blood Sample

A Paramedic will:

F-6-1 Describe and perform the venipuncture process:
- Patient identification process;
- Proper labeling procedures and completion of laboratory requisitions;
- Draw for multiple tube phlebotomy;
- Patient care following completion of phlebotomy.

F-6-2 Perform phlebotomy identifying venous access sites and complications associated with the phlebotomy procedure.

F-6-3 Identify the additive, additive function, volume, and specimen considerations to be followed for each of the various colour coded tubes.

F-6-4 Demonstrate proper equipment selection and use:
- Evacuated collection tubes;
- Needles;
- Holders/adapters;
- Tourniquets;
- Alcohol wipes;
- Povidone-iodine wipes;
- Needle disposal unit.

F-6-5 Discuss the personal safety and infection control issues.

F-6-6 Evaluate the results of the venous samples collected.

Major Competency Area: **F** **Perform and Interpret Diagnostic Testing**	Priority: **Three**

Competency: **F-7**

F-7 Demonstrate Knowledge of Arterial Blood Sample via Radial Puncture

A Paramedic will:

F-7-1 Determine a history to obtain an arterial blood gas (ABG) collection by:

- Assessing the patient's illness;
  - Chronic Obstructive Pulmonary Disease (COPD)
  - Pulmonary edema
  - Adult Respiratory Distress Syndrome (ARDS)
  - Myocardial Infarction (MI)
  - Pneumonia
  - Post Coronary Artery Bypass Surgery
  - Changes in Respiratory therapy
  - Resuscitation from cardiac arrest
  - Prolonged anesthesia
- Assess ulnar circulation;
- Perform the Allen test;
  - ensure patient's arm is rested
  - instruct patient to clench hand
  - apply and hold pressure on radial and ulnar arteries
  - instruction to patient
  - observe for obvious blanching
  - release pressure from ulnar and radial arteries
  - observe for capillary refill.

F-7-2 Demonstrate knowledge in determining methods used to obtain ABG collection by:

- Gathering the equipment;
- Preparing the equipment for the procedure;
  - record the patient's name, date, and time on the label
  - heparinize the syringe
  - collect ice to cool specimen

A Paramedic will:

F-7-2 Demonstrate knowledge in determining methods used to obtain ABG collection by (continued):

- Explaining procedure to the patient;
- Supporting the patient's wrist with a rolled towel;
- Palpating for a strong pulse;
- Clean the puncture site;
- Holding the needle bevel up at 30 to 45 degree angle;
- Puncturing the skin and the arterial wall in one motion;
- Observe for blood flow in the syringe automatically;
- Acquire pre-determined amount;
- Withdrawing needle with direct pressure firmly over the puncture site until bleeding stops - at least 5 minutes;
- Remove air bubbles from syringe;
- Labeling sample and place in ice filled container;
- Monitoring and dress the puncture site.

F-7-3 Demonstrate knowledge and understanding to determine the amount of oxygen therapy the patient has received before ABG collection.

F-7-4 Demonstrate knowledge and understanding to determine potential complications by:

- Ensuring no more than two attempts at the same site;
- Assessing for arterial spasm.

F-7-5 Demonstrate knowledge and understanding in determining correct documentation by:

- Recording the result of the Allen's test;
- Recording the time the sample was drawn;
- Recording the site of the arterial puncture;
- Recording the length of time pressure was applied to the site to control bleeding;
- Recording the type and amount of oxygen therapy the patient was receiving.

F-7-6 Demonstrate knowledge and understanding to determine arterial blood gases from lab results.

Major Competency Area: **F** **Perform and Interpret Diagnostic Testing**	Priority: **Two**

Competency: **F-8**

F-8 Demonstrate Knowledge of and Interpret Laboratory and Diagnostic Imaging Results

A Paramedic will:

F-8-1 Identify examples of common laboratory and radiological data.

F-8-2 Analyze common laboratory values.

F-8-3 Explain the relevance of common radiological and laboratory results to patient presentation.

F-8-4 Analyze cervical spine, thoracic, and other common radiographs.

Major Competency Area: **F**

Perform and Interpret Diagnostic Testing

Priority: **Three**

Competency: **F-9**

F-9 Perform Invasive Core Temperature Monitoring

A Paramedic will:

F-9-1 Differentiate between core and peripheral temperature monitoring.

F-9-2 Explain indications and rationale for measuring core body temperatures.

F-9-3 Explain various means of measuring core body temperature.

F-9-4 Perform measurement of core body temperature and interpret findings.

Major Competency Area: **F** **Perform and Interpret Diagnostic Testing**	Priority: **Three**

Competency: **F-10**

F-10 Demonstrate Knowledge of Arterial Line Monitoring

A Paramedic will:

F-10-1 Define arterial pressure.

F-10-2 Identify normal arterial pressure values.

F-10-3 Explain indications and rationale for arterial pressure monitoring.

F-10-4 Analyze waveforms.

F-10-5 Describe the steps to be taken to ensure the accuracy of arterial pressure values.

F-10-6 Explain complications of arterial line monitoring and their management.

F-10-7 Perform routine management of patients with indwelling arterial catheters.

Major Competency Area: **F**

Perform and Interpret Diagnostic Testing

Priority: **Three**

Competency: **F-11**

F-11 Demonstrate Knowledge of Central Venous Pressure Monitoring

A Paramedic will:

F-11-1 Define central venous pressure.

F-11-2 Identify normal central venous pressure values.

F-11-3 Explain indications and rationale for central venous pressure monitoring.

F-11-4 Analyze waveforms.

F-11-5 Explain complications of central venous pressure monitoring and their management.

F-11-6 Perform routine management of patients central venous pressure catheters.

Major Competency Area: **F**

Perform and Interpret Diagnostic Testing

Priority: **Three**

Competency: **F-12**

F-12 Demonstrate Knowledge of Arterial Blood Sample via Arterial Line Access

A Paramedic will:

F-12-1 Explain indications and rationale for collecting arterial specimens via arterial line access.

F-12-2 Describe arterial blood specimen collection from an arterial line.

F-12-3 Perform collection of blood specimen from an arterial line, including safe maintenance of the arterial line during and following specimen collection.

Major Competency Area: **F**

Perform and Interpret Diagnostic Testing

Priority: **Three**

Competency: **F-13**

F-13 Demonstrate Knowledge of Pulmonary Artery Catheter Monitoring

A Paramedic will:

F-13-1 Define pulmonary artery catheter monitoring.

F-13-2 Identify normal pulmonary artery pressure.

F-13-3 Explain indications and rationale for use of pulmonary artery catheters.

F-13-4 Explain the assessment and management of pulmonary artery catheters.

F-13-5 Analyze waveforms.

F-13-6 Explain complications of pulmonary artery catheters, and their management.

Major Competency Area: **F**

Perform and Interpret Diagnostic Testing

Priority: **Three**

Competency: **F-14**

F-14 Demonstrate knowledge of Intra-Aortic Balloon Pump Monitoring

A Paramedic will:

F-14-1 Explain the purpose of an intra-aortic balloon pump.

F-14-2 Explain complications of intra-aortic balloon pumps during transport.

Major Competency Area: **G** **G. Medication Administration**	Priority: **One**

Competency: **G-1**

G-1 Medication Administration

A Paramedic will:

G-1-1 Demonstrate the ability to prepare medication for administration:
- Verify local protocol/physician order;
- Assess appropriateness of medication for the condition;
- Contraindications, age, weight, allergies, clinical condition, concurrent medication.

G-1-2 Demonstrate the ability to apply guidelines for medication administration:
- Right medication;
- Right dosage;
- Right route;
- Right time;
- Right patient;
- Right documentation;
- Expiry date;
- Packaging integrity;
- Absence of precipitate;
- Clarity.

G-1-3 Demonstrate knowledge to follow specific legislation and local protocol.

G-1-4 Demonstrate knowledge and ability to provide proper documentation:
- Document administration of medication immediately after dispensing;
  - time
  - dose
  - route
  - effect
- Utilize prescribed forms.

G-1-5 Provide patient information regarding medication:
- Indications;
- Effects;
- Side effects.

A Paramedic will:

G-1-6 Demonstrate knowledge to evaluate patient for changes following administration:

- Action of the medication;
- Side effects;
- Adverse effects.

G-1-7 Demonstrate knowledge and ability to conduct drug counts and inventory control on narcotics and controlled substances:

- Utilization of prescribed narcotic control sheets;
- Follow agency policy regarding frequency of drug counts;
- Complete all required inventory control sheets and requisitions;
- Waste of controlled medications must be noted and signed following local protocol.

Major Competency Area: **G** **Medication Administration**	Priority: **One**

Competency: **G-2**

G-2 Administration via Oral Route

A Paramedic will:

G-2-1 Demonstrate knowledge of oral route:
- Rate of absorption;
- Patient clinical condition – consciousness;
- Properties of medication.

G-2-2 Confirm findings, history and indications for the use of the medication.

G-2-3 Select the supply of the prescribed medication.

G-2-4 Confirm correct medication.

G-2-5 Administer medication:
- The pill, tablet, capsule or gel should be placed in the patient's mouth;
- Swallow with enough fluid to ensure medication reaches the stomach;
- If medication is in suspension, shake thoroughly prior to administration;
- A drug not packaged as unit dose should be measured in a medicine cup or syringe.

G-2-6 Monitor patient:
- Document effect.

Major Competency Area: **G** **Medication Administration**	Priority: **One**

Competency: **G-3**

G-3 Administration via Inhalation

A Paramedic will:

G-3-1 Demonstrate knowledge of inhalation route:
- Rate of absorption;
- Patient clinical condition;
- Properties of medication.

G-3-2 Confirm findings, history and indications for the use of medication.

G-3-3 Select the supply of the prescribed medication.

G-3-4 Confirm correct medication.

G-3-5 Prepare delivery equipment.

G-3-6 Administer medication:
- Self administration;
- Assisted administration;
- Administer utilizing devices for inhaled medications.

G-3-7 Monitor patient:
- Document effect.

Major Competency Area: **G** **Medication Administration**	Priority: **One**

Competency: **G-4**

G-4 Administration via Intramuscular Route

A Paramedic will:

G-4-1 Demonstrate knowledge for reasons for intramuscular injection based on:
- Rate of absorption;
- Volume to be administered;
- Patient clinical condition;
- Absence of intravenous access;
- Properties of medication.

G-4-2 Confirm findings, history and indications for the use of the medication.

G-4-3 Select the supply of the prescribed medication.

G-4-4 Confirm correct medication.

G-4-5 Prepare syringe:
- For vials and ampules, change needles prior to administration;
- Purge air from syringe.

G-4-6 Prepare site:
- Cleanse the site.

G-4-7 Administer medication:
- Insert needle into intramuscular tissue;
- Aspirate to ensure blood vessel has not been entered;
- Inject medication;
- Remove the needle;
- Dispose of needle in supplied sharps container;
- Cover the puncture site;
- Massage gently to facilitate absorption.

G-4-8 Monitor patient:
- Document effect.

Major Competency Area: **G** **Medication Administration**	Priority: **One**

Competency: **G-5**

G-5 Administration via Sublingual Route

A Paramedic will:

G-5-1 Demonstrate knowledge of sublingual route:
- Rate of absorption;
- Patient clinical condition;
- Properties of medication.

G-5-2 Confirm findings, history and indications for the use of the medication.

G-5-3 Select the supply of the prescribed medication.

G-5-4 Confirm correct medication.

G-5-5 Administer medication.

G-5-6 Monitor patient:
- Document effect.

Major Competency Area: **G** **Medication Administration**	Priority: **One**

Competency: **G-6**

G-6 Administration via Subcutaneous Route

A Paramedic will:

G-6-1 Demonstrate knowledge for reasons for subcutaneous route based on:
- Rate of absorption;
- Volume to be administered;
- Patient clinical condition;
- Absence of intravenous access;
- Properties of medication.

G-6-2 Confirm findings, history and indications for the use of the medication.

G-6-3 Select the supply of the prescribed medication.

G-6-4 Confirm correct medication.

G-6-5 Prepare syringe:
- For vials and ampules, change needles prior to administration;
- Purge air from syringe.

G-6-6 Prepare site:
- Cleanse the site.

G-6-7 Administer medication:
- Insert needle into subcutaneous tissue;
- Inject medication;
- Remove the needle;
- Dispose of needle in supplied disposal container;
- Cover the puncture site;
- Massage gently to facilitate absorption.

G-6-8 Monitor patient:
- Document effect.

Major Competency Area: **G** **Medication Administration**	Priority: **Two**

Competency: **G-7**

G-7 Administration via Topical Route

A Paramedic will:

G-7-1 Demonstrate knowledge of Topical Route:
- Rate of absorption;
- Patient clinical condition;
- Properties of medication.

G-7-2 Confirm findings, history and indications for the use of the medication.

G-7-3 Select the supply of the prescribed medication.

G-7-4 Confirm correct medication.

G-7-5 Administer medication.

G-7-6 Monitor patient:
- Document effect.

Major Competency Area: **G** **Medication Administration**	Priority: **One**

Competency: **G-8**

G-8 Administration via Intravenous Route

A Paramedic will:

G-8-1 Demonstrate knowledge for reasons for intravenous therapy based on:
- Fluid and electrolyte maintenance, restoration and replacement;
- Medications;
- Blood and blood products;
- Total Parenteral Nutrition (TPN);
- Heparin and saline locks.

G-8-2 Demonstrate ability to differentiate between peripheral, central and implanted ports.

G-8-3 Confirm findings, history and indications for the use of the medication.

G-8-4 Select the supply of the prescribed medication.

G-8-5 Confirm correct medication.

G-8-6 Prepare syringe and intravenous line:
- For vials and ampules, change needles prior to administration;
- Purge air from syringe and intravenous line.

G-8-7 Ensure patency of intravenous line.

G-8-8 Administer medication:
- Cleanse the port;
- Inject or infuse medication;
- Discard in sharps container;
- Flush intravenous line.

G-8-9 Adjust IV rate.

G-8-10 Monitor patient:
- Document effect.

Major Competency Area: **G** **Medication Administration**	Priority: **One**

Competency: **G-9**

G-9 Administration via Endotracheal Route

A Paramedic will:

G-9-1 Demonstrate knowledge for reasons for endotracheal route based on:
- Rate of absorption;
- Volume to be administered;
- Patient clinical condition;
- Absence of intravenous access;
- Properties of medication.

G-9-2 Confirm findings, history and indications for the use of the medication.

G-9-3 Select the supply of the prescribed medication.

G-9-4 Confirm correct medication.

G-9-5 Prepare syringe.

G-9-6 Ensure patency of endotracheal tube.

G-9-7 Administer medication:
- Ensure adequate oxygenation and ventilation of the patient;
- Prepare the medication per protocol;
- Hyperventilate patient;
- Inject medication within the catheter deep into the tube;
- Resume ventilations with large tidal volumes to increase absorption.

G-9-8 Monitor the patient.
- Document effect.

Major Competency Area: **G** **Medication Administration**	Priority: **One**

Competency: **G-10**

G-10 Administration via Intraosseus Route

A Paramedic will:

G-10-1 Demonstrate knowledge for reasons for intraosseous therapy based on:
- Rate of absorption;
- Volume to be administered;
- Patient clinical condition;
- Absence of intravenous access;
- Properties of medication.

G-10-2 Confirm findings, history and indications for the use of the medication.

G-10-3 Select the supply of the prescribed medication.

G-10-4 Confirm correct medication.

G-10-5 Prepare intraosseus line and syringe:
- For vials and ampules, change needles prior to administration;
- Purge air from syringe and/or intraosseus line.

G-10-6 Ensure patency of intraosseus line.

G-10-7 Administer medication:
- Cleanse the port;
- Inject or infuse medication;
- Remove the needle and the syringe from the port;
- Discard in sharps container;
- Flush the intraosseus line.

G-10-8 Adjust the Intraosseus flow rate.

G-10-9 Monitor patient:
- Document effect.

Major Competency Area: **G** **Medication Administration**	Priority: **One**

Competency: **G-11**

G-11 Administration via Umbilical Vein

A Paramedic will:

G-11-1 Demonstrate knowledge for Umbilical Vein administration based on:
- Anatomy of Fetal Circulation;
- Patient clinical condition;
- Absence of intravenous access;
- Volume to be administered;
- Potential for errors.

G-11-2 Confirm findings, history and indications for the use of the medication.

G-11-3 Select the supply of the prescribed medication.

G-11-4 Confirm correct medication.

G-11-5 Prepare umbilical line equipment:
- Sterile drapes;
- Sterile gauze pads;
- 10 ml syringe;
- Normal Saline;
- 3-way stopclock;
- Umbilical catheters: 3/5 French or 5 French;
- Sterile scalpel with blade;
- Povidone-iodine solution;
- Adhesive tape;
- Forceps.

G-11-6 Ensure umbilical vein catheter is patent.

G-11-7 Administer medication:
- Flush medication with 0.5 to 1.0 ml of N/S to clear medication from catheter into the patient.

G-11-8 Monitor patient:
- Document effects.

Major Competency Area: **G** **Medication Administration**	Priority: **One**

Competency: **G-12**

G-12 Administration via Rectal Route

A Paramedic will:

G-12-1 Demonstrate knowledge for reasons for rectal route based on:
- Rate of absorption;
- Volume to be administered;
- Patient clinical condition;
- Absence of intravenous access;
- Properties of medication.

G-12-2 Confirm findings, history and indications for the use of the medication.

G-12-3 Select the supply of the prescribed medication.

G-12-4 Confirm correct medication.

G-12-5 Prepare syringe:
- For vials and ampules, remove needle prior to administration.

G-12-6 Administer medication:
- Lubricate soft catheter;
- Attach syringe to catheter;
- Inject or insert medication.

G-12-7 Monitor the patient:
- Document effect.

Major Competency Area: **G** **Medication Administration**	Priority: **One**

Competency: **G-13**

G-13 Administration via Intralingual Route

A Paramedic will:

G-13-1 Demonstrate knowledge of intralingual route:
- Rate of absorption;
- Patient clinical condition;
- Properties of medication.

G-13-2 Confirm findings, history and indications for the use of the medication.

G-13-3 Select the supply of the prescribed medication.

G-13-4 Confirm correct medication.

G-13-5 Administer correct amount of medication.

G-13-6 Monitor patient:
- Document effect.

Major Competency Area: **G** **Medication Administration**	Priority: **Two**

Competency: **G-14**

G-14 Administration via Intradermal Route

A Paramedic will:

G-14-1 Demonstrate knowledge of intradermal route:
- Rate of absorption;
- Patient clinical condition;
- Properties of medication.

G-14-2 Confirm findings, history and indications for the use of the medication.

G-14-3 Select the supply of the prescribed medication.

G-14-4 Confirm correct medication.

G-14-5 Draw up amount of medication to be administered or prepare pre-loaded syringe:
- Purge air from syringe.

G-14-6 Select, prepare and cleanse site.

G-14-7 Administer medication:
- Insert into dermal layer needle at 15 degree angle with the bevel up;
- Inject medication;
- Inspect for raised wheal at injection site;
- Remove the needle;
- Dispose of needle.

G-14-8 Monitor patient:
- Document effect.

Major Competency Area: **G** **Medication Administration**	Priority: **One**

Competency: **G-15**

G-15 Administration via Infusion Pump

A Paramedic will:

G-15-1 Demonstrate knowledge for reasons for infusion therapy based on:
- Fluid and electrolyte maintenance, restoration and replacement;
- Medications;
- Total Parenteral Nutrition (TPN).

G-15-2 Demonstrate ability to differentiate between peripheral, central and implanted ports.

G-15-3 Demonstrate knowledge and ability to use a variety of infusion therapy equipment:
- Infusion sets ;
- Infusion pumps.

G-15-4 Demonstrate ability to calculate required infusion rates.

G-15-5 Confirm correct medication.

G-15-6 Select the supply of the prescribed medication.

G-15-7 Confirm correct medication.

G-15-8 Prepare syringe and infusion line.

G-15-9 Ensure patency of infusion line.

G-15-10 Prepare medication and pump:
- Add medication;
- Set calculated rate;
- Label infusion solution.

G-15-11 Monitor patient:
- Document effect.

Major Competency Area: **H** **H. Clinical Decision Making**	Priority: **One**

Competency: **H-1**

H-1 Principles of Effective Decision Making

A Paramedic will:

H-1-1 **Demonstrate the ability to apply the principles of programmed decision-making:**
- Memorization;
- Protocols.

H-1-2 **Demonstrate the ability to apply the principles of critical decision-making:**
- Task experience;
- Tacit knowledge;
- Experience-based clinical judgment.

H-1-3 **Identify and differentiate between normal and abnormal presentations.**

H-1-4 **Apply a comparative analysis to a given situation or problem.**

H-1-5 **Interpret the clinical findings of the patient:**
- Pertinent positives;
- Pertinent negatives.

H-1-6 **Demonstrate the ability to formulate a clinical impression or hypothesis.**

H-1-7 **Demonstrate the ability to apply the clinical decision in a given situation.**

H-1-8 **Demonstrate the ability to evaluate the decision and reevaluate or redirect as necessary.**

Major Competency Area: **H** **Clinical Decision Making**	Priority: **One**

Competency: **H-2**

H-2 Determine Care for Neurological Alterations

A Paramedic will:

H-2-1 Demonstrate the ability to apply principles of clinical decision making to a patient presenting with alterations of the nervous system.

H-2-2 Interpret the clinical findings of the patient:
- Pertinent positives;
- Pertinent negatives.

H-2-3 Demonstrate the ability to develop and integrate a treatment plan for a patient presenting with alterations of the nervous system, including, but not limited to:
- Seizure Disorders;
  - Grand mal
  - Petit mal
  - Jacksonian
- Neuropathy;
- Structural Alterations;
  - lesions
  - tumors
- Brain injury;
  - Traumatic Brain Injury
  - Cerebrovascular Accident
  - Transient Ischemic Attack
- Increased intracranial pressure;
- Neurogenic shock;
- Eye / Ear alterations.
  - Hyphemia
  - Ruptured globe
  - Traumatic mydriasis
  - Impaled object
  - Foreign body

Major Competency Area: **H** **Clinical Decision Making**	Priority: **One**

Competency: **H-2**

H-2 Determine Care for Neurological Alterations

H-2-4 Evaluate efficacy of treatment plan and redirect treatment utilizing principles of clinical decision making for the patient presenting with alterations of the nervous system.

Major Competency Area: **H** **Clinical Decision Making**	Priority: **One**

Competency: **H-3**

H-3 Determine Care for Respiratory Alterations

A Paramedic will:

H-3-1 **Demonstrate the ability to apply principles of clinical decision making to a patient presenting with alterations of the respiratory system.**

H-3-2 **Interpret the clinical findings of the patient:**
- Pertinent positives;
- Pertinent negatives.

H-3-3 **Demonstrate the ability to develop and integrate a treatment plan for a patient presenting with alterations of the respiratory system, including, but not limited to:**
- Upper Airway Obstruction;
  - anatomical
  - foreign body
- Lower Airway Obstruction;
  - Asthma
  - Chronic bronchitis
  - Emphysema
- Functional Alterations;
  - Pulmonary aspiration
  - Pulmonary embolism
  - Atelectasis
  - Adult Respiratory Distress Syndrome (ARDS)
  - Hemothorax
  - Pneumothorax
  - Toxic inhalation
- Infectious Agents;
  - Tuberculosis
  - Pneumonia.

H-3-4 **Evaluate efficacy of applied treatment plan and redirect treatment utilizing principles of clinical decision making for the patient presenting with alterations of the respiratory system.**

Major Competency Area: **H** **Clinical Decision Making**	Priority: **One**

Competency: **H-4**

H-4 Determine Care for Cardiovascular Alterations

A Paramedic will:

H-4-1 **Demonstrate the ability to apply principles of clinical decision making to a patient presenting with alterations of the cardiovascular system.**

H-4-2 **Interpret the clinical findings of the patient**:

- Pertinent positives;
- Pertinent negatives.

H-4-3 **Demonstrate the ability to develop and integrate a treatment plan for a patient presenting with alterations of the cardiovascular system, including, but not limited to:**

- Hypertension / Hypotension;
- Arteriosclerosis;
- Acute Coronary Syndromes (ACS);
- Congestive Heart Failure (CHF);
- Cardiogenic Shock;
- Cardiac Arrest;
- Rheumatic Fever;
- Pericardial Tamponade;
- Pericarditis.

H-4-4 **Evaluate efficacy of treatment plan and redirect treatment utilizing principles of clinical decision making for the patient presenting with alterations of the cardiovascular system.**

Major Competency Area: **H** **Clinical Decision Making**	Priority: **Two**

Competency: **H-5**

H-5 Determine Care for Gastrointestinal (GI) and Genitourinary (GU) Alterations

A Paramedic will:

H-5-1 Demonstrate the ability to apply principles of clinical decision making to a patient presenting with alterations of the GI/GU system.

H-5-2 Interpret the clinical findings of the patient:
- Pertinent positives;
- Pertinent negatives.

H-5-3 Demonstrate the ability to develop and integrate a treatment plan for a patient presenting with alterations of the GI/GU system, including, but not limited to:
- Aneurysm;
- Appendicitis;
- Cholecystitis;
- Irritable Bowel Disease (IBD);
- Ectopic Pregnancy;
- Endometriosis;
- Esophageal Varices;
- Evisceration;
- Gynecological Disorders;
- Hepatitis;
- Intestinal Obstruction;
- Ovarian cyst;
- Pancreatitis;
- Pelvic Inflammatory Disease (PID);
- Renal Colic;
- Ruptured Spleen;
- Ulcer;
- Urinary Disorders;
- Vascular Disorders;
- Urinary Tract Infection;
- Testicular Torsion;
- Post-operative complications.

A Paramedic will:

H-5-4 Evaluate efficacy of treatment plan and redirect treatment utilizing principles of clinical decision making for the patient presenting with alterations of the GI/GU system.

Major Competency Area: **H**

Clinical Decision Making

Priority: **One**

Competency: **H-6**

H-6 Determine Care for Musculoskeletal Alterations

A Paramedic will:

H-6-1 Demonstrate the ability to apply principles of clinical decision making to a patient presenting with alterations of the musculoskeletal system.

H-6-2 Interpret the clinical findings of the patient:

- Pertinent positives;
- Pertinent negatives.

H-6-3 Demonstrate the ability to develop and integrate a treatment plan for a patient presenting with alterations of the musculoskeletal system, including, but not limited to:

- Traumatic conditions;
  - Fracture
    - Tenderness
    - Instability
    - Crepitation
    - Swelling
    - Open
    - Closed
  - Flail chest
  - Amputation
  - Dislocation
  - Sprains
  - Strains
  - Blunt
  - Penetrating
- Non-traumatic conditions;
  - Scoliosis
  - Osteoporosis
  - Arthritis
  - Myasthenia Gravis.

H-6-4 Evaluate efficacy of treatment plan and redirect treatment utilizing principles of clinical decision making for the patient presenting with alterations of the musculoskeletal system.

Major Competency Area: **H** **Clinical Decision Making**	Priority: **One**

Competency: **H-7**

H-7 Determine Care for Endocrine / Immune Alterations

A Paramedic will:

H-7-1 **Demonstrate the ability to apply principles of clinical decision making to a patient presenting with alterations of the endocrine or immune system.**

H-7-2 **Interpret the clinical findings of the patient:**
- Pertinent positives;
- Pertinent negatives.

H-7-3 **Demonstrate the ability to develop and integrate a treatment plan for a patient presenting with alterations of the endocrine or immune system, including, but not limited to:**
- Hypoglycemia;
- Hyperglycemia;
- Allergic Reaction;
- Anaphylaxis;
- Septic shock;
- Acquired Immune Deficiency Syndrome (AIDS);
- Disseminated Intravascular Coagulation (DIC).

H-7-4 **Evaluate efficacy of treatment plan and redirect treatment utilizing principles of clinical decision making for the patient presenting with alterations of the endocrine or immune system.**

Major Competency Area: **H** **Clinical Decision Making**	Priority: **One**

Competency: **H-8**

H-8 Determine Care for Integumentary Alterations

A Paramedic will:

H-8-1 Demonstrate the ability to apply principles of the clinical decision making to a patient presenting with alterations of the integumentary system.

H-8-2 Interpret the clinical findings of the patient:
- Pertinent positives;
- Pertinent negatives.

H-8-3 Demonstrate the ability to develop and integrate a treatment plan for a patient presenting with alterations of the integumentary system, including, but not limited to:
- Traumatic conditions;
  - Abrasions
  - Penetrations
  - Lacerations
  - Burns
    - Chemical
    - Radiation
    - Thermal
    - Electrical
  - Contusions
  - Amputations
  - Tenderness
  - Swelling
- Non-traumatic conditions;
  - Itching
  - Pain
  - Rash
  - Blisters
  - Boils
  - Scabies
  - Changes in colour
  - Changes in temperature
  - Hives.

A Paramedic will:

H-8-4 Evaluate efficacy of treatment plan and re-direct treatment utilizing principles of clinical decision making for the patient presenting with alterations of the integumentary system.

Major Competency Area: **H** **Clinical Decision Making**	Priority: **One**

Competency: **H-9**

H-9 Determine Care for Poisoning or Overdose

A Paramedic will:

H-9-1 **Demonstrate the ability to apply principles of clinical decision making to a patient presenting with poisoning or overdose.**

H-9-2 **Interpret the clinical findings of the patient:**
- Pertinent positives;
- Pertinent negatives.

H-9-3 **Demonstrate the ability to develop and integrate a treatment plan for a patient presenting with poisoning or overdose, including, but not limited to:**
- Ingested;
- Absorbed;
- Inhaled;
- Injected;
- Radiated.

H-9-4 **Evaluate efficacy of treatment plan and redirect treatment utilizing principles of clinical decision making for the patient presenting with poisoning or overdose.**

Major Competency Area: **H** **Clinical Decision Making**	Priority: **One**

Competency: **H-10**

H-10 Determine Care for Extremes of Temperature

A Paramedic will:

H-10-1 Demonstrate the ability to apply principles of clinical decision making to a patient presenting with extremes of temperature.

H-10-2 Interpret the clinical findings of the patient:
- Pertinent positives;
- Pertinent negatives.

H-10-3 Demonstrate the ability to develop and integrate a treatment plan for a patient presenting with extremes of temperature, including, but not limited to:
- Frostbite;
- Heat cramp;
- Heat exhaustion;
- Heat stroke;
- Febrile;
- Hyperthermia;
- Hypothermia;
- Cold water submersion.

H-10-4 Evaluate efficacy of treatment plan and redirect treatment utilizing principles of clinical decision making for the patient presenting with extremes of temperature.

Major Competency Area: **H** **Clinical Decision Making**	Priority: **One**

Competency: **H-11**

H-11 Determine Care for Behavioural Crises

A Paramedic will:

H-11-1 Demonstrate the ability to apply principles of clinical decision making to a patient presenting with behavioural crises.

H-11-2 Interpret the clinical findings of the patient:
- Pertinent positives;
- Pertinent negatives.

H-11-3 Demonstrate the ability to develop and integrate a treatment plan for a patient presenting with behavioural crisis, including, but not limited to:
- Aggression;
- Alcohol;
- Alzheimer's Disease;
- Anxiety;
- Delirium;
- Dementia;
- Depression;
- Behavioural disorders;
- Suicidal emergencies;
- Sexual Assault;
- Critical Incident Stress.

H-11-4 Evaluate efficacy of treatment plan and redirect treatment utilizing principles of clinical decision making for the patient presenting with behavioural crises.

Major Competency Area: **H** **Clinical Decision Making**	Priority: **One**

Competency: **H-12**

H-12 Determine Care for Obstetric / Gynecological Patients

A Paramedic will:

H-12-1 Demonstrate the ability to apply principles of clinical decision making to an obstetrical / gynecological patient.

H-12-2 Interpret the clinical findings of the patient:
- Pertinent positives;
- Pertinent negatives.

H-12-3 Demonstrate the ability to develop and integrate a treatment plan for an obstetric / gynecological patient, including, but not limited to:
- Abortion;
- Abruptio placenta;
- Breech;
- Childbirth;
- First trimester;
- Gestational diabetes;
- Multiple gestation;
- Placenta previa;
- Post-partum hemorrhage;
- Second trimester;
- Third trimester;
- Pregnancy induced hypertension;
- Eclampsia;
- Pre-eclampsia;
- Sexual assault.

H-12-4 Evaluate efficacy of treatment plan and redirect treatment utilizing principles of clinical decision making for the obstetric / gynecological patient.

Major Competency Area: **H** **Clinical Decision Making**	Priority: **One**

Competency: **H-13**

H-13 Determine Care for Neonatal Patients

A Paramedic will:

H-13-1 Demonstrate the ability to apply principles of clinical decision making to a neonatal patient.

H-13-2 Interpret the clinical findings of the patient:
- Pertinent positives;
- Pertinent negatives.

H-13-3 Demonstrate the ability to develop and integrate a treatment plan for a neonatal patient, including, but not limited to:
- Birth trauma;
- Congenital defects;
- Hypothermia;
- Lengthy labour with fetal distress;
- Maternal drug use;
- Meconium aspiration.

H-13-4 Evaluate efficacy of treatment plan and redirect treatment utilizing principles of clinical decision making for the neonatal patient.

Major Competency Area: **H** **Clinical Decision Making**	Priority: **One**

Competency: **H-14**

H-14 Determine Care for Pediatric Patients

A Paramedic will:

H-14-1 Demonstrate the ability to apply principles of clinical decision making to a pediatric patient.

H-14-2 Interpret the clinical findings of the patient:
- Pertinent positives;
- Pertinent negatives.

H-14-3 Demonstrate the ability to develop and integrate a treatment plan for a pediatric patient, including, but not limited to:
- Asthma;
- Child Maltreatment ;
- Child Seizures;
- Congenital abnormalities;
- Croup;
- Epiglottitis;
- Foreign body airway obstruction (FBAO);
- Febrile;
- Sudden Infant Death Syndrome (SIDS);
- Trauma;
- Respiratory Syncytial Virus (RSV).

H-14-4 Evaluate efficacy of treatment plan and redirect treatment utilizing principles of clinical decision making for the pediatric patient.

Major Competency Area: **H**

Clinical Decision Making

Priority: **Two**

Competency: **H-15**

H-15 Determine Care for Geriatric Patients

A Paramedic will:

H-15-1 Demonstrate the ability to apply principles of clinical decision making to a geriatric patient.

H-15-2 Interpret the clinical findings of the patient:

- Pertinent positives;
- Pertinent negatives.

H-15-3 Demonstrate the ability to develop and integrate a treatment plan for a geriatric patient, including, but not limited to:

- Alzheimer's Disease;
- Sensory deficits;
- Confusion;
- Dementia;
- Psychomotor limitations;
- Depression;
- Elder Abuse.

H-15-4 Evaluate efficacy of treatment plan and redirect treatment utilizing principles of clinical decision making for the geriatric patient.

Major Competency Area: **H** **Clinical Decision Making**	Priority: **Two**

Competency: **H-16**

H-16 Determine Care for Physically Challenged Patients

A Paramedic will:

H-16-1 Demonstrate the ability to apply principles of clinical decision making to a physically challenged patient.

H-16-2 Interpret the clinical findings of the patient:
- Pertinent positives;
- Pertinent negatives.

H-16-3 Demonstrate the ability to develop and integrate a treatment plan for a physically challenged patient, including, but not limited to:
- Amputations;
- Chromosomal aberrations ;
- Sensory deficits;
- Motor limitations;
- Quadriplegia;
- Speech;
- Cerebral Palsy.

H-16-4 Evaluate efficacy of applied treatment plan and redirect treatment utilizing principles of clinical decision making for the physically challenged patient.

Major Competency Area: **H** **Clinical Decision Making**	Priority: **Two**

Competency: **H-17**

H-17 Determine Care for Special Needs Patients

A Paramedic will:

H-17-1 Demonstrate the ability to apply principles of clinical decision making to a Special Needs patient.

H-17-2 Interpret the clinical findings of the patient:
- Pertinent positives;
- Pertinent negatives.

H-17-3 Demonstrate the knowledge and ability to understand the special needs patient including, but not limited to:
- Ventilators;
- Infusion pumps;
- Shunts;
- Dialysis;
- Colostomy;
- Feeding tubes;
- Central lines.
- Foley catheters;
- Hemodialysis fistula;
- Nasogastric tubes.
- G-Tube
- Tracheostomy tube

H-17-4 Evaluate efficacy of treatment plan and redirect treatment utilizing principles of clinical decision making for the Special Needs patient.

Major Competency Area: **H** **Clinical Decision Making**	Priority: **One**

Competency: **H-18**

H-18 Multiple Casualty Incident (MCI)

A Paramedic will:

H-18-1 Demonstrate the ability to apply principles of clinical decision making in a multiple casualty incident (MCI).

H-18-2 Identify the principles of triage and the necessary components utilizing the Incident Command System:

- Triage;
- Treatment;
- Transportation;
- Incident Command System (ICS);
- Communication.

H-18-3 Demonstrate the ability to assume and function in the various multiple casualty incident roles.

H-18-4 Demonstrate knowledge of management of a multiple patient situation.

Major Competency Area: **I** **I. Patient Management Skills**	Priority: **One**

Competency: **I-1**

I-1 Perform Airway Management

A Paramedic will:

I-1-1 **Demonstrate knowledge and ability to perform basic airway management skills:**

- Manual maneuvers;
  - head/tilt chin lift
  - modified jaw thrust
  - modified chin lift
- Heimlich maneuver;
- Abdominal thrust;
- Foreign Body Airway Obstruction (FBAO);
- Simple adjuncts;
  - Oropharyngeal Airway (OPA)
  - Nasopharyngeal Airway (NPA)
- Suctioning techniques;
  - oral suctioning
  - nasopharyngeal suctioning
- Chest thrust;
- Back blows (infants only).

I-1-2 K**nowledge and ability to perform intermediate and advanced airway management skills including, but not limited to:**

- Non-visualized airways;
- Visualized airways;
  - Endotracheal intubation
    - Mallampati Signs – Class I, II, III, IV
- Surgical airway;
  - cricothyroidotomy
  - percutaneous transtracheal jet insufflation
- Tracheal suctioning;
- Direct laryngoscopy with Magill forceps;
- Sellick's maneuver.

I-1-3 **Demonstrate knowledge and ability to facilitate intubation with pharmacological agents.**

Major Competency Area: **I** **Patient Management Skills**	Priority: **One**

Competency: **I-2**

I-2 Perform Oxygen Therapy

A Paramedic will:

I-2-1 **Discuss the indications for oxygen administration and concentration.**

I-2-2 **Demonstrate knowledge and ability to administer oxygen with a nasal cannula.**

I-2-3 **Demonstrate knowledge and ability to administer oxygen using a low concentration mask.**

I-2-4 **Demonstrate knowledge and ability to administer oxygen using a non-rebreather mask.**

I-2-5 **Demonstrate knowledge and ability to administer oxygen using an aerosol mask.**

I-2-6 **Discuss potential complications and safety issues related to oxygen administration.**

I-2-7 **Demonstrate the knowledge and understanding to calculate how long various sizes of oxygen cylinders will last at various flow rates.**

I-2-8 **Demonstrate the knowledge and understanding to discuss differences between portable and fixed oxygen delivery systems.**

I-2-9 **Demonstrate knowledge to setup portable oxygen delivery devices.**

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Major Competency Area: **I** **Patient Management Skills**	Priority: **One**

Competency: **I-3**

I-3 Perform Patient Ventilation

A Paramedic will:

I-3-1 **Demonstrate knowledge and ability to ventilate a patient, including, but not limited to:**

- Pocket mask;
- Bag-Valve-Mask (BVM);
- Non-visualized airways;
  - Example: Combi-tubes®
- Visual airways;
  - Endotracheal tubes
- Surgical airways.

I-3-2 **Demonstrate knowledge and understanding of mechanical ventilators:**

- Recognize indications for mechanical ventilation;
- Recognize potential complications and safety issues related to mechanical ventilation;
- Operate mechanical transport ventilators;
- Differentiate between continous positive airway pressure (CPAP), positive end expiratory pressure (PEEP), and bilateral inspiratory positive airway pressure (BIPAP);
- Utilize a mechanical ventilator based on patient's clinical condition;
- Discuss and understand laminar and turbulent airflow;
- Recognize adequate ventilations being achieved with devices.

Major Competency Area: **I** **Patient Management Skills**	Priority: **One**

Competency: **I-4**

I-4 Perform Cardiopulmonary Resuscitation (CPR)

A Paramedic will:

I-4-1 Demonstrate knowledge and ability to perform:

- Infant CPR;
- Child CPR;
- Adult - one and two rescuer CPR.

I-4-2 Knowledge of pneumatic CPR devices.

Major Competency Area: **I** **Patient Management Skills**	Priority: **One**

Competency: **I-5**

I-5 Perform Automated Defibrillation

A Paramedic will:

I-5-1 **Demonstrate knowledge and ability to use automated and semi-automated external defibrillation (AED).**

I-5-2 **Demonstrate a basic cardiac life support assessment recognizing cardiac arrest.**

I-5-3 **Describe what an AED does.**

I-5-4 **List and describe the four universal steps of operating an AED.**

I-5-5 **Describe how to attach the AED electrode pads in the correct position.**

I-5-6 **Explain why no person should touch the patient while the AED is analyzing, charging, or shocking the patient.**

Major Competency Area: **I** **Patient Management Skills**	Priority: **One**

Competency: **I-6**

I-6 Perform Wound Care

A Paramedic will:

I-6-1 Demonstrate the knowledge and ability to control venous / arterial external hemorrhage through use of, including, but not limited to:

- Direct pressure;
- Elevation;
- Pressure dressing;
- Pressure point;
- Cold therapy;
- Tourniquet;
- Patient position – Trendelenburg's.

I-6-2 Demonstrate knowledge and ability to perform wound care closure.

I-6-3 Repealed (January 2007)

Major Competency Area: **I** **Patient Management Skills**	Priority: **One**

Competency: **I-7**

I-7 Perform Bandaging and Wound Care

A Paramedic will:

I-7-1 Demonstrate the knowledge and ability to apply, including, but not limited to:

- Bandages;
  - Self adhering
  - Gauze roll
  - Triangular
  - Tensor
- Dressings;
  - Pressure
  - Sterile
  - Occlusive
  - Abdominal
  - Field dressing
  - Steri-strips
  - Eye pads
- Cryogenic Therapy;
  - Cold packs.

I-7-2 Demonstrate the knowledge and ability to perform wound care using aseptic techniques.

Major Competency Area: **I** **Patient Management Skills**	Priority: **One**

Competency: **I-8**

I-8 Perform Spinal Motion Restriction

A Paramedic will:

I-8-1 **Demonstrate the knowledge and ability to perform full spinal motion restriction utilizing appropriate equipment, including, but not limited to:**

- Spine boards;
- Head restraints;
- Cervical collars.

Major Competency Area: **I** **Patient Management Skills**	Priority: **One**

Competency: **I-9**

I-9 Perform Splinting

A Paramedic will:

I-9-1 **Demonstrate the knowledge and ability to apply splinting, including, but not limited to:**

- Traction splints;
- Improvised splints;
  - pillows
  - blankets
  - Kendrick Extrication Device (KED) / XP1
- Sling and swathe;
- Wood splints;
- Vacuum splints;
- Air splints;
- Wire splints;
- Speed splints.

Major Competency Area: **I** **Patient Management Skills**	Priority: **One**

Competency: **I-10**

I-10 Perform Intravenous Therapy

A Paramedic will:

I-10-1 Demonstrate the knowledge and ability to monitor peripheral intravenous.

I-10-2 Demonstrate the knowledge and ability to maintain and monitor intravenous therapy:

- Peripheral intravenous line;
  - External jugular veins
- Central intravenous line.

I-10-3 Demonstrate knowledge and ability to initiate and maintain intravenous therapy:

- Crystalloids;
  - Isotonic Solutions (N/S, R/L)
  - Hypertonic Solutions (Plasmanate, Dextran)
  - Hypotonic Solutions (D5W)
- 2/3 1/3;
- Colloids;
  - Plasma Protein Fraction (Plasmanate)
  - Salt Poor Albumin
  - Hetastarch (Hespan).
- Haemoglobin-based Oxygen-Carrying Solutions (HBOCs)

I-10-4 Demonstrate knowledge and ability to calculate infusion drip rates and fluid boluses.

Major Competency Area: **I** **Patient Management Skills**	Priority: **Three**

Competency: **I-11**

I-11 Apply Pneumatic Anti-Shock Garment (PASG)

I-11 Repealed (January 2007)

Major Competency Area: **I** **Patient Management Skills**	Priority: **One**

Competency: **I-12**

I-12 Perform Manual Cardioversion

A Paramedic will:

I-12-1 **Understand the requirements for electrocardiograph (ECG) monitoring and cardioversion in a patient suspicious of acute coronary syndrome.**

I-12-2 **Demonstrate the knowledge and ability to deliver unsynchronized cardioversion:**
- Ventricular fibrillation;
- Pulseless ventricular tachycardia.

I-12-3 **Demonstrate knowledge and ability to deliver synchronized cardioversion:**
- Ventricular tachycardia with a pulse;
- Unstable atrial fibrillation;
- Unstable atrial flutter;
- Unstable supraventricular tachycardia.

I-12-4 **Describe the purpose of sedation / analgesia prior to the delivery of synchronized cardioversion.**

Major Competency Area: **I** **Patient Management Skills**	Priority: **One**

Competency: **I-13**

I-13 Perform Cardiac Pacing

A Paramedic will:

I-13-1 Demonstrate knowledge and ability to initiate transcutaneous pacing (TCP):

- Recognizes indications for TCP;
- Understands mechanics of pacer/monitor/defibrillator;
- Addresses patient comfort and consider sedation;
- Explains procedure/educates patient.

I-13-2 Demonstrate knowledge and ability to recognize indications for TCP pacing:

- Standby pacing;
- Symptomatic sinus node dysfunction;
- Hemodynamically significant bradycardia;
- Bradycardia with escape rhythms;
- Newly acquired left, right, or alternating bundle branch block (BBB) or bifascicular block;
- Second degree atrioventricular block type II;
- Third degree atrioventricular block;
- Asystole;
- Overdrive;
- Unstable bradycardia.

I-13-3 Describe the ability to monitor a transvenous pacing device.

I-13-4 Demonstrate knowledge and ability to monitor for complications during transcutaneous pacing:

- Failure to recognize ventricular fibrillation;
- Induction of other dysrhythmias;
- Soft tissue discomfort;
- Potential for local cutaneous injury prolonged TCP.

Major Competency Area: **I** **Patient Management Skills**	Priority: **One**

Competency: **I-14**

I-14 Perform Intraosseous Infusions

A Paramedic will:

I-14-1 Demonstrate knowledge of indications for intraosseus:
- Administration of medications;
- Administration of intravenous fluids;
- Administration of blood products.

I-14-2 Demonstrate knowledge and ability to initiate an intraosseus infusion.

I-14-3 Demonstrate knowledge of contraindications and complications of intraosseus infusions:
- Tibial fracture;
- Compartment Syndrome;
- Skin necrosis;
- Osteomyelitis.

Major Competency Area: **I** **Patient Management Skills**	Priority: **One**

Competency: **I-15**

I-15 Perform Urinary Catheterization

A Paramedic will:

I-15-1 Demonstrate knowledge of indications for urinary catheterization:

- Diagnostic;
  - Urine output monitoring
  - Study anatomy of the urinary tract
- Therapeutic;
  - Acute urinary retention
  - Chronic obstruction causing hydronephrosis
  - Intermittent bladder decompression for neurogenic bladder
  - Chronically bed-ridden patients.

I-15-2 Demonstrate knowledge and ability to perform urinary catheterization:

- Understands indications / contraindications;
- Educates / prepares patient;
- Identifies proper landmarks;
- Uses sterile technique;
- Performs procedure correctly;
- Understands potential complications and their management.

I-15-3 Demonstration knowledge of contraindications and complications of urinary catheterization:

- Urethral injury;
- Inability to locate urethra;
- Vaginal catheterization;
- Urethral stricture;
- Enlarged prostate;
- Urinary tract infection;
- Paraphimosis.

Major Competency Area: **I** **Patient Management Skills**	Priority: **One**

Competency: **I-16**

I-16 Perform Oro and Nasogastric Tube Insertion

A Paramedic will:

I-16-1 Demonstrate knowledge of indications for Oro/Nasogastric tube insertion.

I-16-2 Demonstrate knowledge and ability to perform Oro/Nasogastric tube insertion.

I-16-3 Demonstrate knowledge of contraindications and complications of Oro/Nasogastric tube insertion.

Major Competency Area: **I** **Patient Management Skills**	Priority: **One**

Competency: **I-17**

I-17 Perform Thoracentesis

A Paramedic will:

I-17-1 Demonstrate knowledge of indications for Thoracentesis:
- Malfunctioning exhalation valves on BVM, Ventilator;
- Barotrauma;
- Medical;
- Trauma.

I-17-2 Demonstrate knowledge and ability to perform Thoracentesis:
- Equipment required;
- Anterior intercostals space.

I-17-3 Demonstrate knowledge of contraindications and complications of Thoracentesis:
- Misdiagnosis;
- Lung laceration;
- Hemothorax.

Major Competency Area: **I** **Patient Management Skills**	Priority: **Two**

Competency: **I-18**

I-18 Perform Pericardiocentesis

A Paramedic will:

I-18-1 Demonstrate knowledge of indication for pericardiocentesis:

- Relieve cardiac tamponade;
  - Trauma
  - Infection
  - Neoplastic disease
  - Myocardial rupture.

I-18-2 Demonstrate knowledge and ability to perform pericardiocentesis:

- Subxiphoid approach;
- Beck's triad.

I-18-3 Demonstrate knowledge of contraindications and complications of pericardiocentesis:

- Cardiac dysrhythmias;
- Puncture or laceration of the cardiac chambers;
- Puncture or laceration of the coronary arteries;
- Hemorrhage from myocardial or coronary artery puncture.

Major Competency Area: **I** **Patient Management Skills**	Priority: **Two**

Competency: **I-19**

I-19 Perform Chest Tube Monitoring

A Paramedic will:

I-19-1 Describe the anatomy and physiology of the chest.

I-19-2 Explain how normal breathing occurs.

I-19-3 Identify the indications for the chest tube placement:

- Spontaneous;
- Pleural effusion;
- Thoracotomy;
- Resection;
- Decortication;
- Pericardial window;
- Thoracoplasty;
- Traumatic.

I-19-4 List the three basic compartments of a drainage system and their functions:

- Suction control;
- Water seal;
- Drainage collection.

I-19-5 List the responsibilities in caring for a patient with a chest tube/drainage system.

I-19-6 Describe appropriate documentation of a patient with a chest tube placement.

Major Competency Area: **I** **Patient Management Skills**	Priority: **Two**

Competency: **I-20**

I-20 Initiate, Monitor, and Maintain Blood and Blood Product Transfusion

A Paramedic will:

I-20-1 Describe the components of whole blood:
- Packed Red Blood Cells (PRBC);
- Platelet concentrate;
- Fresh Frozen Plasma (FFP);
- Cryoprecipitate.

I-20-2 Discuss the need and/or reasons for blood transfusions.

I-20-3 Discuss the possible complications during transfusions:
- Fever and chills;
- Shortness of breath;
- Wheezing;
- Chest and/or back pain;
- Nausea and vomiting;
- Hives;
- Itching;
- Swelling;
- Dizziness;
- Headache;
- Muscle spasm.

I-20-4 Discuss the potential for infection from blood transfusion.

I-20-5 Discuss transfusion reactions:
- Allergic reaction;
- Immune hemolytic reaction;
- Delayed hemolytic reaction.

I-20-6 Describe blood grouping and typing:
- ABO blood types;
- Rh Factor.

A Paramedic will:

I-20-7 Describe the importance of the Transfusion Record Tag.

I-20-8 Set-up blood administration tubing/infusion set with Normal Saline.

I-20-9 Discuss the micron filter device.

I-20-10 Communicate via documentation on the patient record:

- Type of blood, donor number, and amount given;
- Date / time started and completed;
- Amount of Normal Saline used;
- Vital signs;
- Patient response to therapy;
- Description of any untoward reactions;
- Name of person initiating and completing transfusion(s).

Major Competency Area: **I** **Patient Management Skills**	Priority: **Two**

Competency: **I-21**

I-21 Perform Ostomy Care

A Paramedic will:

I-21-1 Identify the purpose of Ostomy drainage/pouching system.

I-21-2 Identify equipment and accessories for Ostomy drainage/pouching.

I-21-3 Describe the most common specific ostomies:

- Colostomy;
- Ileostomy;
- Urostomy.

I-21-4 Describe the components of a drainage bag.

I-21-5 Demonstrate routine care for a patient with an Ostomy drainage system.

Major Competency Area: **J** **J. Patient Transport**	Priority: **One**

Competency: **J-1**

J-1 Have a Working Understanding of Ground Transport

The Paramedic will:

J-1-1 Practice safe vehicle operations.

J-1-2 Identify geographical area using map reading, Global Positional Systems (GPS), Legal Land Description (LLD), local addressing system.

J-1-3 Determine appropriate response and transport modes in conjunction with dispatch, Computer-Aided Dispatch (CAD), Emergency Medical Dispatch (EMD) and patient needs.

J-1-4 Adjust driving to ensure safe working environment for attending practitioners.

J-1-5 Determine appropriate route and destination facility.

J-1-6 Utilize appropriate communications.

J-1-7 Utilize appropriate resources.

J-1-8 Demonstrate defensive driving techniques.

J-1-9 Maintain vehicle in a state of readiness.

Major Competency Area: **J** **Patient Transport**	Priority: **Two**

Competency: **J-2**

J-2 Have a Working Understanding of Fixed Wing Transport (F/W)

A Paramedic will:

J-2-1 Determine appropriateness of Fixed Wing transport.

J-2-2 Identify special considerations of Fixed Wing transport:

- Flight Physiology;
- Duration of transport;
- Weather;
  - local
  - seasonal.

J-2-3 Identify safety requirements for Fixed Wing operations:

- Emergency exits;
- Fire extinguishers;
- Crew emergency oxygen;
- Emergency Locator Transmitter (ELT);
- Survival equipment;
- Emergency fuel shut-off;
- Cabin depressurization.

J-2-4 Identify special patient groups:

- Head injury;
- Chest injury;
- Abdominal injury;
- Airway compromised;
- Obstetrical / neonatal,

J-2-5 Determine appropriate equipment and supplies:

- Dedicated aircraft, (As per the Alberta Health Requisition for Proposal (RFP) for Medical supplies);
- Charter.

Competency: **J-2**

Have a Working Understanding of Fixed Wing Transport (F/W)

A Paramedic will:

J-2-6 Identify safety requirements for air-side operations:

- Transport Canada;
- Air-Side Vehicle Operations Procedure (AVOP);
- Patient preparation.

J-2-7 Knowledge and awareness to the approach of a Fixed Wing aircraft.

Major Competency Area: **J** **Patient Transport**	Priority: **Two**

Competency: **J-3**

J-3 Have a Working Understanding of Rotor Wing Transport (R/W)

A Paramedic will:

J-3-1 Determine appropriateness of Rotor Wing transport.

J-3-2 Identify special considerations of Rotor Wing transport:

- Flight physiology;
- Duration of transport;
- Access to location;
- Weather;
  - local
  - seasonal.

J-3-3 Identify safety requirements for aircraft operations:

- Emergency exits;
- Fire extinguishes;
- Crew emergency oxygen;
- Emergency Locator Transmitter (ELT);
- Survival equipment;
- Emergency fuel shut-off;
- Landing requirements;
  - zone
  - wind direction
  - lighting.

J-3-4 Identify special patient groups:

- Head injury;
- Chest injury;
- Abdominal injury;
- Airway compromised;
- Obstetrical / neonatal.

A Paramedic will:

J-3-5 Identify appropriate equipment and supplies:

- Dedicated aircraft (as per the Alberta Health Requisition for Proposal (RFP) for medical supplies;
- Charter.

J-3-6 Identify safety requirements for air-side / proximity operations:

- Transport Canada;
- Air-side Vehicle Operating Procedures (AVOP);
- Patient preparation.

J-3-7 Knowledge and awareness to the approach of a Rotor Wing aircraft.

Major Competency Area: **J** **Patient Transport**	Priority: **Three**

Competency: **J-4**

J-4 Have a Working Understanding of Marine Transport

A Paramedic will:

J-4-1 Demonstrate the knowledge and ability to determine appropriateness of marine transport.

J-4-2 Demonstrate knowledge of water and boating safety.

Major Competency Area: **J** **Patient Transport**	Priority: **One**

Competency: **J-5**

J-5 Safely Convey Patients

A Paramedic will:

J-5-1 Demonstrate the ability to move a patient, utilizing, but not limited to:

- Extremities carry;
- Chair lift;
- Sheet drag;
- Firefighter's carry;
- One person walking assist;
- Direct carry method.

J-5-2 Demonstrate the ability to move a patient, utilizing, but not limited to:

- Any long spine board;
- Upper body motion restriction device;
- Scoop stretcher;
- Chair (auxiliary) stretcher;
- Basket stretcher;
- Flexible stretcher;
- Smith cot.

J-5-3 Demonstrate the ability to operate an ambulance stretcher.

Major Competency Area: **K** **K. Professionalism**	Priority: **One**

Competency: **K-1**

K-1 Knowledge of the Alberta Occupational Competency Profile

A Paramedic will:

K-1-1 Have knowledge of the Alberta Occupational Competency Profile.

K-1-2 Under ongoing medical control and audit will provide services under the EMT Regulation of the *Health Disciplines Act.*

K-1-3 Under ongoing medical control and audit will provide services under the Paramedic Regulation of the *Health Professions Act.*

Major Competency Area: **K** **Professionalism**	Priority: **One**

Competency: **K-2**

K-2 Knowledge of Standards of Practice

A Paramedic will:

K-2-1 Demonstrate patient care as outlined in published guidelines for the Standard of Practice.

K-2-2 Demonstrate ability to incorporate human values into patient care.

K-2-3 Demonstrate responsibility and accountability for one's own practice.

K-2-4 Demonstrate ability to function as an advocate for the patient and for the profession.

Major Competency Area: **K** **Professionalism**	Priority: **One**

Competency: **K-3**

K-3 Knowledge of Code of Ethics

A Paramedic will:

K-3-1 Demonstrate knowledge of Alberta College of Paramedics (ACP) Code of Ethics.

K-3-2 Apply principles of Code of Ethics to personal and professional life.

K-3-3 Apply principles of Code of Ethics in relationships with students and co-workers:
- Preceptorship;
- Mentorship.

K-3-4 Apply principles of Code of Ethics in relation to public perception and image.

Major Competency Area: **K** **Professionalism**	Priority: **One**

Competency: **K-4**

K-4 Maintain Currency in Professional Development

A Paramedic will:

K-4-1 Participate in competency maintenance.

K-4-2 Accept responsibility for maintaining competence.

K-4-3 Participate in continuing education activities.

K-4-4 Participate in professional activities.

K-4-5 Support continuous quality assurance and quality improvement within the organization.

K-4-6 Understand the elements of research.

Major Competency Area: **K** **Professionalism**	Priority: **Two**

Competency: **K-5**

K-5 Maintain Personal Well-being

A Paramedic will:

K-5-1 Understand application of the components of well-being:

- Emotional;
- Mental;
- Physical;
- Spiritual.

Major Competency Area: **K** **Professionalism**	Priority: **Two**

Competency: **K-6**

K-6 Ability to Work Effectively in Multidisciplinary Environments

A Paramedic will:

K-6-1 Demonstrate knowledge of the role of the paramedic as a team member.

K-6-2 Provide patient care as a member of a team based on patient needs, level of care required, and scope and limitations of team members.

K-6-3 Follow direction and work collaboratively in the provision of patient care.

Major Competency Area: **K** **Professionalism**	Priority: **One**

Competency: **K-7**

K-7 Demonstrate Leadership Skills

A Paramedic will:

K-7-1 **Demonstrate knowledge of the qualities and principles of leadership.**

K-7-2 **Demonstrate delegation of patient care to the team based on patient needs, level of care required, and scope and limitations of team members.**

K-7-3 **Demonstrate effective supervision of a team and assist as required to ensure safety.**

K-7-4 **Demonstrate knowledge and ability to evaluate the care provided.**

K-7-5 **Demonstrate knowledge ability to manage time effectively and use resources efficiently.**