CONCEPTS AND COMPONENTS OF CRITICAL CARE TRANSPORT

- Describe the history of ambulance transports.
- Name three examples of Critical Care Transport Team composition configurations.
- Identify and describe the preferred qualifications of a Critical Care Transport Paramedic.
- Name six advanced procedures performed by a Critical Care Transport Team.
- Differentiate between routine and specialty equipment found on a Critical Care Transport unit.
- Discuss the three modes of transport for the critically ill or injured.
- Identify indications for critical care transport.
- Describe the interfacility transfer process.

MEDICOLEGAL ASPECTS OF CRITICAL CARE TRANSPORT

- Apply the essential legal principles necessary to the practice of emergency medicine to the job of the critical care paramedic.
- Recognize and discuss the legal risks and liabilities involved in critical care transport.
- Apply basic risk management principles to critical care transport.
- Discuss the fundamental elements of litigation, hearings and peer-review proceedings.
- Understand EMTALA and the implications for EMS.
- Name the appropriate steps for accepting a patient transfer.
- State the appropriate steps in assessing and preparing for transfer.
- Identify the role of other healthcare providers who accompany the patient.
- State the appropriate steps to transfer care to the receiving facility.
- Appropriately document the transfer.
- Identify areas of potential liability.
- State methods to minimize risk.
- Be familiar with current case law regarding transport.

LABORATORY DATA INTERPRETATION

- Describe the relationship between laboratory medicine and the diagnosis and treatment of patients.
- Describe the common problems associated with specimen collection and ways to avoid these problems.
- Identify mean lab values and deviations for the complete blood count, the differential blood count, and platelet values.
- Interpret arterial blood gas data.
- Interpret chemistry studies.
- Interpret urinalysis.
- Interpret miscellaneous laboratory studies.

SHOCK

- Define shock.
- Discuss the major pathophysiology of shock.
- Describe how assessment techniques can help identify shock.
- Describe the general management principles for the patient in shock.
- Describe pharmacological intervention in different types of shock.

MULTI-SYSTEM ORGAN FAILURE

- Define multisystem organ failure.
- List the history, signs, and symptoms of the patient with sepsis.
- Describe the management of the patient with sepsis.
- List the history, signs, and symptoms of the patient with acute respiratory distress syndrome (ARDS).
- Describe the management of the patient with ARDS.
- List the history, signs, and symptoms of the patient with disseminated intravascular coagulation (DIC).

INFECTION CONTROL & COMMUNICABLE DISEASES

- Describe proper infection control procedures that the Critical Care Transport Paramedic should take when treating patients.
- Identify the modes of transmission and precautions to follow when treating a patient with the following infectious diseases: HIV, Hepatitis, Multiple-Antibiotic Resistant Bacteria, Tuberculosis, Meningitis.

BREATHING ASSESSMENT AND PULMONARY PHYSIOLOGY

- Assess oxygen saturation using a pulse oximeter.
- Identify the categories of information obtained through an ABG analysis.
- Describe the technique for drawing an ABG.
- Describe important landmarks and anatomical structures of the chest wall and respiratory system.
- Describe two factors important in the generation of breath sounds.
- Describe how to assess breath sounds for duration, pitch, and intensity.
- Identify auscultatory sites for breath sounds assessment.
- Define normal and adventitious breath sounds.
- Define consolidation.
- Perform vocal and tactile fremitus assessments of lung fields.
- Define and describe abnormal respiratory patterns.
- Define and describe respiration and ventilation abnormalities.
- Perform a complete respiratory assessment.

PLEURAL DECOMPRESSION

- Identify indications for pleural decompression.
- Discuss methods for pleural decompression assessment.
- Describe the procedure for pleural decompression.
- Differentiate between normal and abnormal assessment findings.
- Identify transport complications associated with pleural decompression.

PORTABLE VENTILATORS

- Identify indications and purpose for portable ventilators.
- Discuss methods for ventilator assessment.
- Differentiate between normal and abnormal assessment findings.
- Describe the procedure for placing a patient on a portable ventilator.
- Identify transport complications of portable ventilators.

ET TUBE AND TRACHEAL SUCTIONING

- Identify indications for ET tube and tracheal suctioning.
- Describe the procedure for ET tube and tracheal suctioning.
- Identify complications of ET tube and tracheal suctioning.
- Provide overview of RSI.
- Identify pharmacologic agents utilized during ventilator transports.
- Describe why sedative medications should usually accompany the use of paralytic agents.
- Identify transport considerations for patients intubated with the RSI technique.

TRACHEOSTOMIES

- Identify indications and purposes for a tracheostomy.
- Identify criteria for tracheostomy assessment.
- Differentiate between normal and abnormal assessment findings.
- Describe the procedure for tracheostomy placement.
- Identify transport complications of tracheostomies.
NEEDLE CRICOTHYROTOMY
- Identify indications and purpose for needle cricothyrotomy.
- Identify criteria for needle cricothyrotomy assessment.
- Differentiate between normal and abnormal assessment findings.
- Identify transport complications for needle cricothyrotomy.

SURGICAL CRICOTHYROTOMY
- Identify indications and purpose for surgical cricothyrotomy.
- Identify criteria for surgical cricothyrotomy assessment.
- Differentiate between normal and abnormal assessment findings.
- Identify transport complications for surgical cricothyrotomy.

RETOGRADE INTUBATION
- Discuss the indications and purpose for retrograde intubation.
- Identify criteria for retrograde intubation.
- Describe the procedure for retrograde intubation.
- Differentiate between normal and abnormal assessment findings.
- Identify transport complications for retrograde intubation.

BLOOD ADMINISTRATION
- Differentiate between antigens, natural antibodies and acquired antibodies.
- Identify antibodies and antigens associated with specific blood types.
- Define Rh factor.
- Identify seven types of blood component therapy.
- Identify indications for blood administration.
- Describe the procedure for blood administration.
- Identify the signs and symptoms of transfusion reactions.
- Describe the management procedures for transfusion reactions.
- Describe the indications for administration of whole blood and packed red blood cells.
- Describe the indications for typing, screening and cross matching red blood cells.
- Describe the ABO system for matching blood.
- Identify the indications for blood administration.

IMPLANTABLE CARDIOVERTER DEFIBRILLATORS
- Discuss the incidence of sudden cardiac death and the population at risk.
- Describe how and Implantable Cardioverter Defibrillator (ICD) works.
- Its components and its functions.
- Identify the potential complications associated with the ICD and location of placement in the chest wall.
- Describe the procedure for deactivating an ICD with a magnet.

CARDIAC PACEMAKERS
- Understand the basic concepts underlying cardiac pacemaker technology.
- Understand the current code system used for cardiac pacing.
- Understand and troubleshoot the potential rhythms that indicate forms of pacemaker malfunction.

SEDATIVES
- Identify the indications, mechanism of action, pharmacokinetics, dosing and side effects of haloperidol.
- Identify the mechanism of action of benzodiazepine drugs.
- Compare the dosing and side effects of diazepam, lorazepam and midazolam.
- Identify the indications, mechanism of action, pharmacokinetics, dosing and side effects of flumazenil.
- Identify the indications, mechanism of action, pharmacokinetics, dosing, side effects, drug interactions and administration considerations of propofol.

ANALGESICS
- Identify the mechanism of action, pharmacokinetics, and side effects of morphine.
- Identify the mechanism of action, pharmacokinetics, and side effects of naloxone.

PARALYTI
- Identify the mechanism of action, pharmacokinetics, and toxicity of Succinylcholine.
- Identify the indications, mechanism of action, pharmacokinetics, side effects and drug interactions of pancuronium, vecuronium and atracurium.
- Identify the order of paralysis.
- Discuss the adverse effects of prolonged paralysis.
- Identify the role of "train of four" monitoring when using paralytics.
Identify transport complications associated with nasogastric and rogastric tubes.

**URINARY CATHETERS**
- Identify indications and purpose for Foley catheters
- Discuss assessment methods for Foley catheters
- Differentiate between normal and abnormal assessment findings
- Describe procedure for Foley catheter placement
- Identify transport complications for Foley catheters

**OSTOMIES**
- Identify indications for an ostomy
- Discuss methods for ostomy assessment
- Differentiate between normal and abnormal assessment findings
- Discuss methods for ostomy placement
- Identify transport complications for ostomies

**HEMODIALYSIS and PERITONEAL DIALYSIS**
- Identify indications and purpose for dialysis
- Differentiate between hemodialysis and peritoneal dialysis
- Describe the procedure for accessing arteriovenous shunts
- Identify transport complications of dialysis patients

**RECTAL CONSIDERATIONS**
- Describe the rectal anatomy and structures
- Classify rectal bleeding: red, bright red, melena
- Discuss incontinence, diarrhea and constipation management techniques
- Demonstrate rectal temperature assessment technique
- Describe decubitus ulcers

**NEUROLOGICAL ASSESSMENT**
- Describe the major components of a neurological examination
- Describe the differences in the neurological assessment between a brain injured or spinal injured patient
- Perform a neurological examination
- Describe the findings of a normal and abnormal neurological examination
- Describe vital signs changes noted with neurological injuries
- Identify transportation considerations for patients with neurological injuries

**NEUROLOGICAL ASSESSMENT LAB**
- Correctly perform a neurological assessment
- Document the findings of a neurological examination

**INTRACRANIAL PRESSURE**
- Describe intracranial pressure (ICP)
- Describe the pathophysiology of ICP
- Define compliance

**TRANSPORTS: START TO FINISH**
- Differentiate operational aspects of critical care transport and conventional prehospital care
- Identify four major opportunities for positive interaction that exist during a critical care transport
- Incorporate prospective medical control into the care of critical patients
- Identify critical decision points in a transport event
- Develop an event flowsheet
- Identify essential patient perceptions of quality service
- Understand the role of family members in critical care transport
- Recognize situations warranting diversion or interception
- Incorporate unique management tactics with moribund patients and families

**PEDIATRIC CONSIDERATIONS**
- Identify various histories and general principles for pediatric assessment
- Define the primary cause of cardiac arrest and list several risk factors
- Describe principles of general treatment before and during the transport of a pediatric patient

**OBSTETRICAL/GYNECOLOGICAL CONSIDERATIONS**
- Identify various histories and general principles for OB/GYN assessment
- Define the primary cause of cardiac arrest and list several risk factors
- Describe principles of general treatment before and during the transport of an OB/GYN patient

**BURN CONSIDERATIONS**
- Identify various histories and general principles for burn assessment
- Define the primary cause of cardiac arrest and list several risk factors
- Describe principles of general treatment before and during the transport of a burn patient

**X-RAY CONSIDERATIONS**
- Understand the basic concepts underlying X-ray interpretation
- Describe a systematic “assessment” of an X-ray
- CASE STUDIES
- Integrate topics learned with case scenarios

**Signature** of Medical Director, responsible for the Training Program

**PRINTED** Name Dated

Montana Physician License Number