C3
INTERFACILITY TRANSPORT PROTOCOLS

WEST VIRGINIA
Department of
Health & Human Resources
BUREAU FOR PUBLIC HEALTH
Office of Emergency Medical Services

West Virginia Office of Emergency Medical Services EMS Protocols

2021 EDITION

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Preface

The C3IFT Program has been updated from its 2009 original form. *The original form was put into place to improve* access to tertiary care. *Due to the success of the original Providers, this new version is designed to further that goal. The b*iggest difference in *this version* is the intent to have *C3IFT Providers be able to transport more* patients between facilities in a timelier manner *than currently available*. In keeping with the scope of the specialty care transport provider (SCT) *the* C3IFT *will continue to be one of the primary providers who perform* inter-facility transportation of a critically injured or ill *individual* by a ground ambulance vehicle. *This includes* the provision of medically necessary supplies and services, at a level of service beyond the scope of the EMT-Paramedic.

- Committee was made up of 27 different providers from 27 different agencies
- 21 New Protocols
- *Individual Experience Requirements*
- No Restrictive Medication List
- *Recertification Requirement*
- Ability to Take Patients if facility has stabilized to the best of their ability.

These protocols outline the procedures to be utilized by ***C3IFT*** EMS providers when conducting an inter-facility transport. These protocols are designed for patients requiring ongoing care that must be provided by one or more health professionals from a sending facility to a receiving facility.

The sending facility has stabilized the patient to the best of their ability and the patient's care requires transfer to another facility.

If the patient presents with unstable symptoms or a scope of care which exceeds that of the provider class, contact Medical Command for assistance in determining the proper class of transport including aeromedical or ground CCT transport.

In the pediatric population, any question of overall stability shall ultimately be determined by the Medical Command Physician in consultation with the sending and/or receiving physician.

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C3 INTERFACILITY TRANSPORT PROTOCOL

STABILITY CHART

C3IFT Level of Care Decision Questions

Answering "yes" to any of these questions requires the transport to be CCT or Level Zero
(Level Zero→ appropriate facility staff must accompany the transport)

Is the patient on a medication listed in the C3IFT exclusion list?
Nitroprusside
Neosynephrine
Phenobarbitol

Is the patient on more than 3 modalities?
Each is considered one modality:
Medicated drip
Chest tube
CPAP/BiLevel
Blood products
Ventilator

Does the patient have any of the following vital signs?
MAP < 65 mmHg OR has it been > 65 mmHg less than 30 minutes?
Sustained heart rate > 130 BPM?
Sustained respiratory rate > 28 breaths/min?
Is the patients pulse ox < 88%?

Does the patient have a high risk of requiring drug assisted intubation during transport?

Is the patient on 2 vasopressor drips?
Or a vasopressor drip **AND** one of the following?
Intubated (2 C3IFT)
Continuous sedation drip
Insulin drip
Inotropic drip
Antiarrhythmic drip

Does the patient have a pH < 7.20 (not including administration of Sodium Bicarbonate)?

Does the patient require re-administration of blood products during transport?

Is the patient intubated and on:
Continuous IV sedation (2 C3IFT)
Insulin drip

Is this a **pediatric** patient on:
An insulin drip?
A vasopressor drip?

A written order from the transferring facility must accompany all Interfacility transports (paper or electronic)

VOLUME EXPANDER

This protocol covers blood, blood products, and volume expanders. **All of these components must be infusing prior to transport.** Blood must be infusing via the appropriate tubing with normal saline IV spiked for infusion after the transfusion is complete.

A. Perform **Interfacility Transport Assessment (IFTA) Procedures Patient Care Protocol 9204** and follow the proper protocol for medical management based on clinical presentation**.**

Reference Optional Paramedic Treatment Protocol 4112 – Tranexamic Acid.

B. Blood products are classified as one of the following: whole blood, packed red blood cells, platelets, fresh frozen plasma, liquid or never frozen plasma.

C. Treatment for whole blood, packed red blood cells, platelets, fresh frozen plasma, and other blood components or elements.

D. If patient condition or diagnosis requires the administration of more than one already infusing blood product, contact **Medical Command** for consideration of aeromedical or CCT ground transport arrangements.

E. Continue the infusion rate as set by the **sending physician**.

F. All blood products are monitor only for the C3-IFT-Paramedic.

G. Monitor and document vital signs to include temperature every 15 minutes during infusion.

H. When transfusion is complete, infuse normal saline IV at 100 ml/hr or at a rate ordered by the **sending physician**.

I. Monitor patient closely for nausea, vomiting, chills, fever, itching, rash, dyspnea, back pain, chest pain, or other signs of a transfusion reaction.

J. In the event of a transfusion reaction, discontinue blood product infusion immediately, reassess patient and vital signs, and **contact MCP** for possible management orders. Upon arrival to the receiving facility take all blood products, transfusion bags and tubing to the blood bank

CHEST TUBES

This protocol covers chest tubes. Chest tubes are used to treat conditions that disrupt the pleural space.

A. Perform **Inter-Facility Transport Assessment (IFTA) Procedures Patient Care Protocol 9204** and follow the proper protocol for medical management based on clinical presentation**.**

B. Perform a pulmonary assessment to include:

   a. Respiratory rate

   b. Work of breathing

   c. Breath sounds

   d. SpO2

   e. Monitor Capnography

C. Inspect the dressing.

   a. Note any drainage

   b. Assess for subcutaneous emphysema, if present consult sending physician.

D. Keep all tubing free of kinks, loops and occlusions.

E. **Wet Chest Tube Process**

   a. Promote drainage.

      i. Keep the chest tube drainage unit below the level of the patient's chest.

   b. Water Levels

      i. Monitor water levels in the water-seal and suction-control chambers.

   c. Tidaling- is the normal rise and fall of fluid in the water seal chamber due to change in intrathoracic pressure.

      Be aware that tidling (**fluctuations in the water-seal chamber with respiratory effort**) is normal. The water level increases during spontaneous inspiration and decreases with expiration.

i. However, with positive-pressure mechanical ventilation, tidaling fluctuations are the opposite: the water level decreases during inspiration and increases during expiration.

ii. If tidaling doesn't occur, suspect the tubing is kinked or clamped, or a dependent tubing section has become filled with fluid.

d. Bubbling

i. Intermittent bubbling, corresponding to respirations in the water-seal chamber, indicates an air leak from the pleural space; it should resolve as the lung re-expands.

ii. If bubbling in the water-seal chamber is continuous, suspect a leak in the system.

iii. To locate the leak's source, such as a loose connection or from around the site, assess the system from the insertion site back to the chest tube drainage unit.

iv. If bubbling in water-seal is continuous, contact **Medical Command.**

e. Monitor the amount and color of drainage.

i. In the event the tube comes out of the patient:

1. Have the patient cough or forcibly exhale and place an occlusive dressing over the chest tube site and secure it on 3 sides.

2. Notify the receiving hospital and consider diverting to the nearest hospital.

3. Monitor for increase work of respirations and signs of pneumothorax.

F. **Dry Chest Tube Process**

a. These incorporate dry suction control technology to maintain safe and effective levels of vacuum to the patient.

b. Monitor force of suction- Similar fashion to how a traditional graduated water chamber controls suction, dry suction control regulator works by continuously

balancing the forces of suction and atmosphere.

c. Transport patient's suction pressure can be set to physician's order – "*Typically between -10 cmH2O and -40 cmH2O".*

G. Note:

a. Don't milk, strip, or clamp the chest tube.

b. Avoid aggressive chest-tube manipulation.

In the event of disconnection Contact Medical Command

BURNS

This protocol is intended for transport of patient in need of specialized burn care.

A. Perform **Interfacility Transport Assessment (IFTA) Procedures Patient Care Protocol 9204** and follow the proper protocol for medical management based on clinical presentation**.**

B. Airway

a. If signs of respiratory involvement are present such as facial burns, singed face or nasal hairs, swollen, sooty, or reddened mucous membranes, or patient was in a confined space and/or unconscious, assume inhalation injury and treat per **Inhalation Injury Protocol 4304.**

b. If there is airway involvement and the patient has not been intubated consult with the sending physician about securing the airway prior to your departure.

c. Once intubation is confirmed, if patient requires continued sedation, long term paralytics, or analgesics, refer to Sedation Protocol 3605.

C. Body Surface Area Burned:

a. Determine and document the body surface areas burned (BSAB).

D. Fluid Resuscitation

a. In conjunction with sending physician establish weight of the patient and use one of the following fluid resuscitation methods:

i. The Modified Brooke formula is 2 ml/kg x body surface area burned.

ii. The Modified Parkland formula is 2 ml x body surface area burned.

a. In the case of electrocution use: 4 ml/kg x body surface area burned.

iii. Both formulas estimate the first 24-hour fluid requirements from the time of the burn, with half the amount given in the first 8 hours.

E. Pain Management:

a. The goal is to reduce the discomfort to a level that is bearable for the patient while achieving the goal of transferring them to a facility able to treat their burn for short or long term.

b. The practice of bolus dosing the patient should be discouraged and instead a continuous drip should be infused.

c. The drip will have been running 15 minutes prior to the departure of the ambulance to the receiving facility.

d. Sedatives and Analgesic drips should be initiated and or titrated per **Sedation Protocol 3605**.

CHEST PAIN

This protocol is utilized when the patient is being treated for chest pain and in need of interfacility transfer.

A. Perform **Inter-Facility Transport Assessment (IFTA) Procedures Patient Care Protocol 9204** and follow the proper protocol for medical management based on clinical presentation**.**

B. Review 12 lead and all patient records at sending facility.

C. If chest pain worsens enroute to receiving facility, repeat the ECG, reassess the patient and obtain a new full set of vital signs.

D. Titrate Vasodilators and or Opiates per the sending physician orders.

Notify MCP for consideration of alternate destination

E. If the patient develops a new onset of chest pain follow guidelines for **Paramedic Chest Pain Protocol 4202.**

F. Monitor any medications from the below categories as prescribed by the sending physician:

1. Vasodilators - Refer to **Vasodilators Protocol 3203**
2. Vasopressor **-** Refer to **Vasopressor Protocol 3204**
3. Antiplatelet - Refer to **Medications Affecting Blood Clotting Protocol 3217**
4. Anticoagulants - Refer to **Medications Affecting Blood Clotting Protocol 3217**
5. Fibrinolytics - Refer to **Medications Affecting Blood Clotting Protocol 3217**
6. Antidysrhythmics - Refer to **Anti-Arrhythmic Protocol 3208**

VASODILATOR

This protocol is utilized when the patient is being treated with vasodilators for reduction of preload and or afterload.

A. Perform **Interfacility Transport Assessment (IFTA) Procedures Patient Care Protocol 9204** and follow the proper protocol for medical management based on clinical presentation**.**

B. Continue vasodilator as **ordered by the sending physician**.

C. Monitor patient for hypotension, bradycardia, or tachycardia.

D. Titrate:

a. As needed in increments to maintain blood pressure **within systolic and/or MAP parameters as determined by the sending physician.**

b. Obtain vital signs every 5 minutes when titrating vasodilator or **if patient's condition changes.**

c. For patient's experiencing **new onset or worsening** of chest pain during a interfacility transport.

i. Reassess patient's vital signs and obtain an additional 12 lead ECG.

ii. Titrate vasodilator as ordered by the **sending physician**.

E. If blood pressure drops below 90 systolic with signs and symptoms of hypotension:

- Tachycardia
- Mental status changes
- Change in skin color

Or drops more than 30 mmHg, temporarily stop the vasodilator and reassess the patient. Consider a 250 ml bolus of normal saline.

F. If patient remains hypotensive **consult MCP**.

VASOPRESSOR

Medications administered to manage central hypoperfusion by increasing blood pressure, mean arterial pressure, and improving cardiac output.

If more than one vasopressor medication is required to maintain blood pressure and perfusion, contact Medical Command for aeromedical or CCT ground transport.

(2) C3IFT or higher level attendant must be available to assist paramedic and be physically present in the patient compartment at all time throughout the transport if: the patient is intubated and on a vasopressor.

A. Perform **Inter-Facility Transport Assessment (IFTA) Procedures Patient Care Protocol 9204** and follow the proper protocol for medical management based on clinical presentation.

B. Continue infusion rate as **ordered by the sending physician**.

C. Titrate as needed in increments to maintain minimum systolic blood pressure and/or mean arterial pressure (MAP) as **ordered by the sending physician.**

D. Mean Arterial Pressure (MAP) (2 x diastolic) + systolic / 3

E. Monitor for dyspnea, pulmonary edema, severe tachycardia, hypertension, or phlebitis.

F. If patient exhibits signs of hypertension, tachycardia **consult MCP.**

G. If signs of infiltration discontinue medication and **contact MCP.**

ANTIARRHTHMIC

Medications administered in order to control atrial and/or ventricular arrhythmias and improve cardiac pumping action and cardiac output.

The medications in this protocol are monitor only for the C3-IFT-paramedic.

A. Perform **Interfacility Transport Assessment (IFTA) Procedures Patient Care Protocol 9204** and follow the proper protocol for medical management based on clinical presentation**.**

B. Treatment:

a. Continue infusion rate as **ordered by the sending physician**.

b. Blood pressure and heart rate should be assessed and documented every 15 minutes while antiarrhythmic medications are infusing.

c. Monitor for signs or symptoms of hypoperfusion such as hypotension, bradycardia, pallor, dyspnea, nausea, vomiting, and altered mental status.

d. Discontinue Medication and **consult MCP** if patient exhibits signs of hypoperfusion.

MEDICATIONS AFFECTING BLOOD CLOTTING

This protocol is utilized when the patient has been administered or being treated with medications which effect blood clotting, such as anti-platelet, anticoagulant, thrombolytic or when reversal of anticoagulation medications is needed.

A. Perform **Interfacility Transport Assessment (IFTA) Procedures Patient Care Protocol 9204** and follow the proper protocol for medical management based on clinical presentation**.**

B. If actively infusing, monitor the medication as prescribed by the sending physician.

C. When monitoring, anticipate short cycles of ventricular tachycardia and spontaneous arrhythmias that often resolve on their own.

   a. Monitor the patient and recheck vital signs if these occur.

   b. If arrhythmias or changes in the patient's status/vitals occur that last more than a few minutes:

D. **Consult Medical Command.**

E. Monitor the anticoagulant medication for any of the following side effects:

   a. Nose Bleed/uncontrolled bleeding

   b. Severe abdominal pain

   c. Obvious Blood in urine

   d. Obvious Blood in stool

   e. Obvious vomiting of blood

   f. Sudden severe back pain

F. If any of the above side effects occur; discontinue medication and **consult MCP.**

BIPAP

This protocol is designed for Bilevel Positive Airway Pressure Devices (BiPAP). BiPAP delivers air through a mask to the patient's airway. The air pressure keeps the throat muscles from collapsing and reducing obstructions. Bi-level therapy provides two independently set pressures to maintain airway stability and support ventilation requirements.

- Inspiratory Positive Airway Pressure (IPAP) is the higher pressure. This pressure is applied during inhalation and can augment the patient's tidal volume.
- Expiratory Positive Airway Pressure (EPAP) is the lower pressure. This pressure is applied during exhalation. It can provide upper airway stability or increase the patient's functional Residual Capacity.

A. Indications: Severe respiratory distress not responding to initial treatment with any of the following:

   a. CHF/Pulmonary edema/near drowning

   b. Hypoxia, i.e., SaO2 less than 90% on supplemental oxygen

   c. Acute exacerbation of asthma/COPD

   d. Bilateral pneumonia

   e. Exacerbation of neurological disorders

   f. Acute non-traumatic lung injury

   g. Obstructive sleep apnea syndrome

   h. Patient on continuous noninvasive ventilation support

B. Contraindications:

   a. Respiratory/cardiac arrest

   b. Lack of respiratory drive

   c. Uncooperative patients

   d. B/P less than 90mmHg

   e. Unresponsive to speech

f. Inability to maintain patent airway. (impaired swallowing / cough)

g. Major trauma, pneumothorax, penetrating chest trauma.

h. Vomiting or active GI bleeding with emesis

i. Unstable facial fractures, major facial lacerations, facial burns

j. Facial, esophageal, or gastric surgery

k. Patient with aspiration risk/history

C. Relative contraindications:

a. Extreme anxiety

b. Morbid obesity

c. Copious secretions

d. Asthma patients on CPAP

D. Application: EMT/Paramedic/C3IFT

a. Explain the procedure to the patient.

b. If the patient is not in respiratory distress and on continuous BiPAP use their normal settings and continue the BiPAP.

c. If the patient is on continuous BiPAP and in respiratory distress, follow the CPAP Protocol 7301.

d. EMT - If the patient is not on BiPAP and is in severe respiratory distress follow the CPAP Protocol 7301.

e. Paramedic – If the patient is not on BiPAP and is in moderate distress apply BiPAP at the manufacture's initial recommendations for IPAP and EPAP. If the patient is in or develops severe distress, follow the CPAP Protocol 7301.

f. C3IFT – Use the settings for BiPAP provided by the Physician at the sending facility. Determine the range that the sending Physician wants you to adjust the IPAP and EPAP before you follow the CPAP Protocol 7301; if respiratory distress increases.

g. Be certain you have enough oxygen supply for the anticipated transport time with a safety margin (considering expected traffic, road conditions and travel time).

h. If the patient's respiratory distress increases, they become less responsive, or the SaO2 decreases to 90% or less, apply BVM, assist ventilations with a reservoir and supplemental oxygenation. Paramedic/C3IFT - consider endotracheal intubation.

Notes:

- All providers must become familiar with the BiPAP equipment that they will encounter
- EMT/Paramedic/C3IFT – Simple home BiPAP units used in your response area
- Paramedic/C3IFT – Simple BiPAP units by your squad
- C3IFT – BiPAP ventilators/units being provided by your sending facility(s)
- Oxygen duration in minutes = (PSI in cylinder x-cylinder conversion factor) / Flow rate in LPM
- Oxygen Cylinder Conversion Factors:
    - D Tank =0.16
    - E Tank = 0.28
    - G Tank = 2.41
    - H/K Tank = 1.56

BRONCHODILATOR

Used for the management of reversible lower airway disease, bronchospasms, exacerbations of asthma or COPD, and anaphylaxis.

A. **Perform Interfacility Transport Assessment (IFTA) Procedures Patient Care Protocol 9204** and follow the proper protocol for medical management based on clinical presentation.

B. Treatment:

   a. If during transport the patient develops bronchospasm refer to: **Bronchospasm Protocol 4302**.

   b. Document vital signs including pulse oximetry and breath sounds before and after administration of an inhaled medication.

C. Inhaled medication:

   a. Administer medication as prescribed **by the sending physician**.

D. Intravenous medication:

   a. Administer medication as prescribed **by the sending physician.**

E. The medication Terbutaline can be administered both via inhalation and SQ as prescribed by the sending physician.

ANTIVENOM

This protocol is used when Antivenom has been initiated at the sending facility and must be continued during transport. Antivenom may be used in patients with moderate to severe reaction from a venomous snake bite or a severe reaction from a black widow spider envenomation.

Contraindications: Antivenoms are derived from horses and or sheep therefore, known allergy to sheep and or horses are considered contraindications. Monitor the patient for progression of the envenomation syndrome. If symptoms of the envenomation are increasing contact Medical Command.

A. Perform **Interfacility Transport Assessment (IFTA) Procedures Patient Care Protocol 9204** and follow the proper protocol for medical management based on clinical presentation**.**

B. Treatment:

a. Maintain infusion rate **ordered by the sending physician.** The IV site should be in the unaffected extremity.

b. Consider aeromedical transport if available to minimize out of hospital time between the sending and receiving facility.

c. Monitor vital signs every 15 minutes if asymptomatic and every 5 minutes if symptomatic. Symptoms may include nausea, vomiting, mental status changes, tachycardia, hypotension, and uncontrolled bleeding.

d. Monitor patient for signs and symptoms of allergic or anaphylactic reaction. If symptoms are present, refer to **Allergic Reaction/Anaphylaxis Protocol 4501 and contact MCP.**

e. If symptoms progress or systemic symptoms begin or worsen, **contact Medical Command** for further orders or possible ground CCT intercept.

SEPSIS

This protocol covers the treatment and transport of a patient is severe sepsis. Sepsis is an overwhelming body response to an infection that effects critical organ systems and can lead to damage to those systems. It can result in organ failure and death of the individual.

A. Adult (Sepsis):

a. Perform **Interfacility Transport Assessment (IFTA) Procedures Patient Care Protocol 9204** and follow the proper protocol for medical management based on clinical presentation.

b. Obtain and record core temperature every 15 minutes.

c. Assess patient for adequate IV access. If IV access is questionable initiate (2) large bore IV's.

d. Goal:

a. Ensure patient has been administered at a minimum 30ml/kg of crystalloid fluid to treat hypotension.

b. If patient has not received at least 30ml/kg of crystalloid fluid attempt to achieve this by infusing crystalloid fluid.

c. If patient shows signs and symptoms of pulmonary edema from crystalloid fluids contact Medical Command.

d. Evaluate the patient after every 500 ml of crystalloid fluids administered for signs and symptoms of pulmonary edema.

e. Monitor urine output and record every hour. Attempt to maintain urine output at 1 ml/kg/hour.

c. Monitor Mean Arterial Pressure (MAP) and Systolic Blood Pressure

i. Mean Arterial Pressure > 65--- MAP= [(2x diastolic) + systolic] / 3

ii. Or Systolic Blood ressure (SBP) of > 90 mmHg

e. Obtain and record labs: lactate, glucose, arterial blood gases.

f. Obtain vital signs every 5 minutes

g. Monitor and/or titrate Vasopressor Drip at a rate ordered by **physician order.**

NEUROLOGICAL

This protocol is being utilized when the patient is being transferred for an acute central neurological deficit to the closest accepting facility capable of providing care for neurological deficits. A **central neurologic deficit** refers to abnormal motor, sensory or cognitive function due to brain or spinal cord dysfunction. Stroke, brain or spinal cord trauma or seizures are examples of central neurologic deficits.

A. Perform **Interfacility Transport Assessment (IFTA) Procedures Patient Care Protocol 9204** and follow the proper protocol for medical management based on clinical presentation**.**

B. For any patient experiencing a neurological deficit recheck and document vital signs and perform a complete neurological assessment every 15 minutes.

C. If conscious: Transport with head elevated.

D. If unconscious or intubated refer to **Sedation Protocol 3605**. Transport with head elevated.

E. Repeat 12 lead ECG. Report any changes from original 12 lead to receiving facility.

F. **Monitor Mean Arterial Pressures and or Systolic Blood Pressure parameters as determined by the sending physician.**

G. **Monitor** any medications from the below categories as prescribed by the **sending physician**:
   a. Osmotic Diuretics - to reduce intracranial pressure
   b. Anticonvulsants - help prevent seizures
   c. Electrolytes - aids in neurochemical transmission and muscular excitability
   d. Barbiturates - help reduce intracranial pressure refractory to other treatments
   e. Calcium Channel Blockers - may help in decreasing cerebral vasospasms
   f. Beta Blockers - reduce mortality possible by blocking catecholamine release
   g. Vasodilators - Refer to **Vasodilator Protocol 3203**
   h. Vasopressor **-** Refer to **Vasopressor Protocol 3204**
   i. Fibrinolytics - Refer to **Medications Affecting Blood Clotting Protocol 3217**

DIABETIC

The goal of this protocol is to maintain clinically appropriate blood glucose levels in patients suffering from hyperglycemia who are being transferred inter-facility on an insulin infusion.

A. **Perform Interfacility Transport Assessment (IFTA) Procedures Patient Care Protocol 9204** and follow the proper protocol for medical management based on clinical presentation.

B. Treatment Guidelines:

C. Obtain:
   a. The last Blood Glucose Level reading from the sending facility.
   b. EMS obtained initial Blood Glucose Level within first 10 minutes of transport
   c. Blood Glucose Levels every 30 minutes
   d. Final BGL upon arrival at destination
   e. Additional Blood Glucose Levels if there is any doubt in patient status or if shows signs of hypoglycemia.

D. Monitor Insulin Infusion at a rate of the **sending physician**
   a. If Blood Glucose Levels drop below 250 mg/dl **reduce** infusion to 0.05 u/kg/hr.
      i. Keep serum glucose between 150-200 mg/dl.
      ii. Monitor closely with BGL performed every 15 minutes for at least 1hour

E. Administer/continue crystalloid fluid as ordered by the sending physician.

SEDATION

This protocol is used for sedation of a patient during interfacility transport.

A. **Perform Interfacility Transport Assessment (IFTA) Procedures Patient Care Protocol 9204** and follow the proper protocol for medical management based on clinical presentation.

B. Treatment in the **non-intubated patient**:

a. Confirm and document signs and symptoms that indicate the need for administration of the sedative.

b. Obtain and document vital signs.

c. Sedation of a patient with respiratory depression, hypotension, or decreased mental status is contraindicated.

d. Administer the sedative from the chart below at the dose **ordered by the sending physician**.

e. Utilization of only one sedative is recommended. In conjunction with the **sending physician**, initiate only (1) sedative from the below chart.

f. Use of this protocol is not intended for patients receiving noninvasive positive pressure treatments.

g. If not using the below chart refer to H of this protocol.

Drug	Non-Intubated IV Dose	Intubated IV Dose	May Give Twice	Comments
Midazolam (*Versed*)	1 mg	0.1 mg/kg up to 5 mg	5 minutes apart	**Give slowly over 2 minutes Maximum dose 10 mg**
Lorazepam (*Ativan*)	1 mg	2 mg	10 minutes apart	Dilute with equal ml's of normal saline, **give slowly over 2 minutes Maximum dose 10 mg**
Diazepam (*Valium*)	2.5 mg	5 mg	5 minutes apart	**Give slowly over 2 minutes Maximum dose 10 mg**

h. Document the outcome and effectiveness of the medication.

i. If no improvement or medication is ineffective, **consult with Medical Command Physician** for further orders.

j. **Do <u>not</u>** give sedatives in an IV line with any other medication. Flush line with 5 ml normal saline before and after giving the drug.

C. Treatment in the **intubated patient**:

An EMT-B or higher level attendant must be available to assist the paramedic and be physically present in the patient compartment at all times throughout the transport.

Another C3IFT or higher level attendant must be available to assist paramedic and be physically present in the patient compartment at all time throughout the transport if: the patient is intubated and on a vasopressor.

a. Assess and document endotracheal tube size and depth and confirm proper placement by auscultation of breath sounds and continuous wave-form capnography.

b. Obtain and document vital signs.

c. Document the patient's level of sedation and monitor vital signs with pulse oxygenation and capnography every 15 minutes.

D. If the patient is appropriately sedated maintain the sedative infusion rate set by the sending physician.

a. If you have concerns for under or over sedation discuss this adjusting the infusion rate with the **sending physician.**

i. Discuss the Following with the **sending physician**

1. Target sedation score? (based on sedation assessment RASS Chart Below)

2. Which sedative medication should be given for breakthrough agitation/anxiety? (See previous chart for intubated IV dosing).

a) If patient requires > 2 boluses in one hour how much should the

sedation/analgesic infusion rate be increased?

E. Document the patient's level of sedation and monitor vital signs with pulse oxygenation and capnography every 15 minutes.

F. Monitor continuous sedative/analgesic infusions.

G. If the patient requires long term paralytics? What is to be administered and how often?

   a. Note: An agent for long term paralysis MUST never be given until endotracheal tube placement is fully confirmed. **All patients given a long-term paralytic agent must also periodically be given sedation while they remain paralyzed.**

H. **NOTE:** Administration of sedation and or pain medications may not be tolerated well in patients over 55 years of age. Doses should be initiated low and repeated as needed.

Richmond agitation sedation scale

Score	Term	Description
+4	Combative	Violent; immediate danger to staff
+3	Very agitated	Pulls/ removes tubes, catheters; aggressive
+2	Agitated	Frequent non purposeful movement; patient ventilator asynchrony
+1	Restless	Anxious or apprehensive
0	Alert and calm	
-1	Drowsy	Not fully alert but awakens for >10s, with eye contact, to voice
-2	Light sedation	Briefly awakens (<10s), with eye contact, to voice
-3	Moderate sedation	Any movement to voice but no eye contact
-4	Deep sedation	No response to voice but movement to physical stimulation
-5	Unarousable	No response to voice or physical stimulation

OBSTETRICS

The goal of this protocol is to prevent preterm labor or high risk delivery of term deliveries at facilities who are requesting interfacility transfer.

A. Perform **Interfacility Transport Assessment (IFTA) Procedures Patient Care Protocol 9204** and follow the proper protocol for medical management based on clinical presentation**.**

B. Indications:

a. Prolapsed Cord

b. Limb Presentation

c. Preterm (<37 weeks)

d. Ruptured amniotic membranes

C. Contraindications:

a. Active labor of non-complicated pregnancy

D. Treatment:

a. Any of the following situations require: **An EMT-B or higher level attendant must be available to assist the paramedic and be physically present in the patient compartment at all times throughout these transports.**

b. Assess at Facility and reassess patient every 15 minutes for:

i. Fetal Heart Tones

ii. Labor Pattern (intensity, duration or frequency)

c. If Labor Pattern differs from initial assessment at sending facility **contact MCP** for possible management orders.

d. Breech Delivery:

i. Expedite transport and notify Medical Command.

ii. Allow spontaneous delivery with support of presenting part at the perineum.

iii. If head is not delivered within four (4) minutes, insert a gloved hand into the vagina to form a "V" airway around infant's nose and mouth.

e. Prolapsed cord:

i. Expedite transport and notify Medical Command.

ii. Place mother in knee-chest position or on hands and knees with knees to chest.

iii. Ask mother to pant during contractions and Not bear down.

iv. Insert gloved hand into vagina to push presenting part of baby off the cord to ensure continued circulation through the cord. Continue until relieved at hospital.

f. Limb presentation:

i. Expedite transport and notify Medical Command.

ii. Rapid transport.

g. If Magnesium Sulfate has been initiated monitor per sending physician order

i. Assess Deep tendon reflexes

ii. If Deep Tendon Reflexes differ from initial assessment at sending facility **contact MCP** for possible management orders

iii. Calcium Gluconate should accompany any patient receiving Magnesium Sulfate

ANTIBIOTICS

Any antibiotic must have been infusing for at least 15 minutes prior to transport and determination made that patient is not experiencing an allergic reaction to the medication.

A. Perform **Interfacility Transport Assessment (IFTA) Procedures Patient Care Protocol 9204** and follow the proper protocol for medical management based on clinical presentation**.**

B. Treatment:

   a. Continue infusion rates as set by the sending physician.

C. Monitor patient for symptoms of an allergic reaction: rash, hives, dyspnea, itching, and/or tachycardia.

D. If symptoms occur, stop the infusions, refer to **Allergic Reaction/Anaphylaxis Protocol 4501** and consult MCP for further orders.

ARTERIAL LINES

Arterial line placement is a common procedure in various critical care settings. Intra-arterial blood pressure (BP) measurement is more accurate than measurement of BP by noninvasive means, especially in the critically ill.

Placement of an arterial line can also help prevent complications associated with repeated arterial puncture and should be able to be left in place and transported by the C3IFT Paramedic.

Intra-arterial BP management permits the rapid recognition of BP changes that is vital for patients on continuous infusions of vasoactive drugs.

Arterial cannulation also allows for hospitals to perform repeated arterial blood gas samples to be drawn without injury to the patient.

Indications for arterial line placement in hospitals are as follows:

- Continuous direct BP monitoring - Arterial catheter MAP measurements are even more accurate than sphygmomanometric BP readings in patients who are morbidly obese, are very thin, have severe extremity burns, or have very low blood pressures
- Inability to use indirect BP monitoring (eg, in patients with severe burns or morbid obesity)
- Frequent blood sampling
- Frequent arterial blood gas sampling

A. Perform **Interfacility Transport Assessment (IFTA) Procedures Patient Care Protocol 9204** and follow the proper protocol for medical management based on clinical presentation**.**

B. **Treatment:**

   a. Transport the arterial line with the dressings intact and completely inspected prior to departing the sending facility.
   b. Inspect area for signs of ischemia by monitoring the patient's distal pulses.
   c. Document the distal pulse location, quality at least once an hour.
   d. Inspect the arterial line's pressure bag for pressure amounts. Record the amount of pressure in the pressure bag, follow the physician's order to keep the arterial line in place.
   e. If in the event an arterial line gets displaced:
      i. Compress the site with a sterile dressing for several minutes, longer if the patient is on anticoagulation. Save any displaced materials and give to receiving facility.
      ii. Contact Medical Command

ANALGESIC

This protocol is to assist provider in the management of pain during Interfacility Transports.

A. Perform **Interfacility Transport Assessment (IFTA) Procedures Patient Care Protocol 9204 and follow the proper protocol for medical management based on clinical presentation.**

B. Treatment

   a. Assess and document presenting signs and symptoms that require the administration of an analgesic medication.

   b. Obtain and document current vital signs.

C. Contraindications

   a. Respiratory depression

   b. Hypotension

   c. Altered Mental Status

D. Administration

   a. Administer analgesic medications as per sending physician's order or **Paramedic Protocol 4902.**

PATIENT ASSESSMENT

This protocol outlines the procedures to be utilized by EMS providers when conducting an interfacility transport. This protocol is designed for a patient requiring ongoing care that must be provided by one or more health professionals from a sending facility to a receiving facility.

The sections utilized by each Class of provider are as follows:

Class 6 (EMT-B)	**Sections A through F**
Class 5 (ACT)	**Sections A through F, plus G, H, and I**
Class 4 (Field EMT-P)	**Sections A through F, plus J, K, and L**
Class 3 (C3-IFT-P)	**Sections A through F, plus M, N, and O**

If the patient presents with highly unstable symptoms or a scope of care which exceeds that of the provider class, contact Medical Command for assistance in determining the proper class of transport including aeromedical or ground CCT transport.

The sending facility has stabilized the patient to the best of their ability and the patient's care requires transfer to another facility.

In the pediatric population, any question of overall stability shall ultimately be determined by the Medical Command Physician in consultation with the sending and/or receiving physician**.**

A. Prior to arrival, the IFT provider should receive general information from their communications center or the sending facility. Information should include the medical necessity and reason for transfer, current patient condition and interventions, expected medical needs during the transfer, and finally the receiving physician, facility and unit-department assignment.

B. Upon arrival at the sending facility, the IFT provider should receive a verbal report from the primary care nurse or physician and a signed Physician Certification Report as appropriate. Updated information regarding current condition, medical care, and destination should be obtained.

C. Upon initial contact with the patient, begin and document an assessment.

   a. Airway, Breathing, Circulation, Disability, and GCS.

   b. SAMPLE history and obtain initial vital signs.

   c. Detailed physical examination as appropriate for situation.

d. Inspect all dressings, drains, and tubes for amount, color, and consistency of drainage. Document location, size, and patency.

e. Monitors: All patients must be on monitoring devices consistent with the Class of transport and scope of care being provided. All Class 3, 4, and 5 IFT patients must be on a cardiac monitor and continuous pulse oximetry during transport.

f. All patients must have an accepting (receiving) physician. Document the name of this physician on the patient care record.

g. Determine if the patient is packaged properly for transfer, all records are with the patient, and prepare for departure.

h. If family members are present, make sure that destination and travel instructions are given.

D. During transport, vital signs should be monitored and documented every 30 minutes. Some protocols require more frequent vital signs checks. If the patient condition changes, repeat vital signs every 5 minutes and **consult MCP.**

E. At the completion of the transport, give report to the receiving nurse or physician. Include condition during transfer, interventions and outcomes, and most recent set of vital signs.

F. Turn over all medical record documents, transport notes, and patient belongings to the staff.

Depending on the Class of transport being conducted the following additional procedures should be utilized:

Class 5 - Advanced Care Technician Inter-Facility Scope of Practice. The ACT should also utilize sections G, H, and I below:

G. The ACT (Class 5) is limited to providing interfacility care to those patients whose medical conditions can be addressed utilizing only the medications and procedures outlined in the 5000 Series protocols. No additional medications or procedures are authorized.

H. Any anticipated medications which the patient may need while in transport should be identified and the sending physician MUST provide written orders outlining the exact route and dosing of the medication. **The ACT must obtain these orders in writing prior to leaving the facility. In the event that unforeseen or unanticipated events develop during transport the ACT should utilize the 5000 series protocols and contact Medical Command.**

I. Turn over all unused medications to Registered Nurse at receiving facility and have the nurse sign the Patient Care Record attesting to receiving of medication(s) or wasting of excess medication as appropriate. Note: The disposition of Schedule II and IV medications may require additional specific documentation per local squad medical director or squad policy.

Class 4 – Field Paramedic Inter-Facility Scope of Practice. The Class 4 Paramedic should utilize sections J, K, and L below:

J. The Class 4 Paramedic is limited to providing inter-facility care to those patients whose medical conditions can be addressed utilizing only the medications and procedures outlined in the 4000 Series Protocols. No additional medications or procedures are authorized.

K. **Any anticipated medications which the patient may need while in transport should be identified and the sending physician MUST provide written orders outlining the exact route and dosing of the medication. The Class 4 Paramedic must obtain these orders in writing prior to leaving the facility. All continuous IV infusion medications except maintenance IV fluid must infuse via pump. In the event that unforeseen or unanticipated events develop during transport the Class 4 Paramedic should utilize the 4000 series protocols and contact Medical Command.**

L. **Turn over all unused medications to Registered Nurse at receiving facility and have the nurse sign the Patient Care Record attesting to receiving of medication(s) or wasting of excess medication as appropriate. Note: The disposition of Schedule II and IV medications may require additional specific documentation per local squad medical director or squad policy.**

Class 3 – IFT Paramedic Inter-Facility Scope of Practice. The Class 3 IFT Paramedic

should utilize sections M, N, and O below:

M. The C3-IFT Paramedic is limited to providing interfacility care to patients requiring ongoing care that must be provided by one or more health professionals from a sending facility to a receiving facility. **The additional medications utilized in the 3000 Series transports MUST be provided by the sending facility.**

N. **Any anticipated medications which the patient may need while in transport should be identified and the sending physician MUST provide written orders outlining the exact route and dosing of the medication. The C3-IFT Paramedic must obtain these orders in writing prior to leaving the facility. All continuous IV infusion medications except maintenance IV fluid must infuse via pump. In the event that unforeseen or unanticipated events develop during transport the C3-IFT Paramedic should utilize the 4000 series protocols and contact Medical Command.**

O. **Turn over all unused medications to Registered Nurse at receiving facility and have the nurse sign the Patient Care Record attesting to receiving of medication(s) or wasting of excess medication as appropriate. Note: The disposition of Schedule II and IV medications may require additional specific documentation per local squad medical director or squad policy.**