



1903 Marquette Ave, Suite J 102, Muskegon, MI 49442

Lesson Plan: Virtual Peds Med Admin

Topic: Pediatric Medication Administration (Virtual-Lecture)

Presenter: Muskegon County Medical Control Authority CE Sponsor Program

Location: Muskegon County Medical Control Authority CE Sponsor Locations

Credit Category: Special Considerations – Pediatrics

License Level: AEMT, Paramedic

Credits: 1.0

Format: 1-hour scenario-based virtual lecture

Objectives: At the conclusion of this CE session, the participants will be able to:

1. Integrate pediatric weights with correct Mi-MEDIC card.
2. Execute correct dosing based on scenarios for pediatric medications.
3. Form conclusions on best practices to prevent med errors.



1903 Marquette Ave, Suite J 102, Muskegon, MI 49442

Lesson Plan: Virtual Peds Med Admin



Michigan Department of Health and Human Services
Bureau of EMS, Trauma and Preparedness
Division of EMS and Trauma
P.O. Box 30207
Lansing, MI 48909-0207
517-335-8150 (Phone)

Special Considerations: Pediatric Medication Administration Virtual Lesson Plan

Participant Requirements

- Must have length-based tape (Broselow™, for example)
- Must have MI-Medic Cards ([Link to MI-Medic Cards](#))
- Internet service with active webcam and microphone
- Pseudo-medication vials (Normal Saline, water, etc.)-may use glass of colored water for medication and glass of clear water for dilution material
- Syringes of various volumes (1 ml, 3 ml, 5 ml, 10 ml, 50 ml)

Instructor Coordinator Requirements

- Virtual communication platform with webcam and microphone (e.g. Zoom, Microsoft Teams, Web Ex)
- Stop cock for demonstration of usage
- MI-Medic Cards ([Link to MI-Medic Cards](#))
- At least ten scenarios with various medication needs

Scenarios

At least 10 scenarios that will identify the nature of illness, weight of the patient, and medical history of the patient. (You may not use all 10 scenarios during the session, but must have them ready)

- Each scenario will require a different medication or dose due to condition.
- Each scenario will require utilization of the length-based tape, MI-Medic cards, and pseudo- medication draw up. The IC will ensure that the participant was accurate with the utilization of each of these steps and must include remediation for any recognized errors.

Time Frame

Each scenario should take 5-10 minutes to discuss the history, gather the equipment, ensure the right dose is drawn up to administer, and to remediate. This course will last 50-60 minutes.

Objectives

By the end of the session, the student will:

- 1: Have a thorough understanding of the necessity of use of the MI-Medic cards.
- 2: Be able to accurately measure a child utilizing a length-based tape.
- 3: Accurately draw-up the appropriate medication for the weight of the child.
- 4: Have a thorough understanding of the need to identify the 5 rights of medication administration.

Attendance Roster

An attendance roster will be completed by the IC and maintained for a period of 4 years. If this lesson plan is utilized by an approved CE program sponsor, the records must be maintained for a period of 7 years.

Certificate of Attendance

A certificate of attendance will be signed by the IC, and include the approval number, date of CE, and signature of the IC.

Office: 231-728-1967 Fax: 231-728-1644



1903 Marquette Ave, Suite J 102, Muskegon, MI 49442

Lesson Plan: Virtual Peds Med Admin

Pediatric Medication Scenarios

The attendee can print off labels from Google (or other search engine) to get the correct medications carried in their medication bags.

Scenario: 2-month-old in cardiac arrest, unknown reason, CPR in progress.

History: None

Weight (if known from caretaker): 10 pounds at most recent visit (unknown date)

Color on length-based tape/Mi-Medic Card: Gray **Medication needed:** Epinephrine 1:10,000 (1 mg/10 ml) **Appropriate dose for patient:** .01 mg/kg (.05 mg/0.5 ml) **Dilution requirements:** N/A

Scenario: 10-month-old in tonic/clonic seizure. IV is established and does not appear to be febrile.

History: None

Weight (if known from caretaker): Unknown

Color on length-based tape/Mi-Medic Card: Red (11 kg) **Medication needed:** Midazolam IV (5 mg/ml) **Appropriate dose for patient:** .05 mg

Dilution requirements: Dilute with 4 ml of saline=0.5 ml

Scenario: Three-year-old fall with obvious fracture to radius/ulna and in a lot of pain.

History: None

Weight (if known from caretaker): Approximately 35 pounds, per Mom on scene

Color on length-based tape/Mi-Medic Card: White

Medication needed: Fentanyl IV (100 mcg/2 ml) or Morphine (10 mg/ml)

Appropriate dose for patient: Fentanyl: 15 mcg (1.5 ml diluted)

Morphine: 1.5 mg (1.5 ml diluted)

Dilution requirements: Fentanyl: 1 mcg/kg=dilution with 8 ml Saline

Morphine: .1 mg/kg=dilution with 9 ml Saline

Scenario: 16-month-old unresponsive.

History: None

Weight (if known from caretaker): 25 pounds, per Dad **Color on length-based tape/Mi-Medic Card:** Purple **Medication needed:** D25 (12.5g/50ml)

Appropriate dose for patient: 5g

Dilution requirements:



1903 Marquette Ave, Suite J 102, Muskegon, MI 49442

Lesson Plan: Virtual Peds Med Admin

Scenario: 8-Year-old in respiratory distress after bee sting

History: No medical history

Weight (if known from caretaker): Unknown

Color on length-based tape: Orange (52-65 pounds/24-29 kg)

Medication needed: Epinephrine, Diphenhydramine

Appropriate dose for patient: Epi IM: .01 mg/kg=0.15 mg

Diphenhydramine IM (50 mg/ml) Dose: 30 mg (0.6 ml/IM)

Diphenhydramine IV (50 mg/ml) Dilute with 4 ml Dose: 30 mg (3 ml/diluted)

Dilution requirements: Diphenhydramine: 4 ml saline/1 ml medication

Scenario: 16-month-old cyanotic, respiratory rate of 4, pupils pinpoint

History: No medical history

Weight (if known from caretaker): 22 pound at last Dr. visit

Color on length-based tape: Purple

Medication needed: Narcan

Appropriate dose for patient: 1 mg IV, IM, or IN

Dilution requirements: N/A

Scenario: 2-month-old male. Mother fell asleep while lying next to baby in bed. Unresponsive, apneic, pulseless. CPR has been initiated prior to arrival.

History: No medical history. No complication with birth, and Mother did have pre-natal care.

Weight (if known from caretaker): 10 lbs.

Color on length-based tape: Gray

Medication needed: Epinephrine 1:10

Appropriate dose for patient: .05 mg, volume: 0.5 ml

Dilution requirements: 1 mg is already diluted in 10 ml syringe.

Scenario: 14-year-old male, cardiac arrest, Persistent VFib

History: Unknown

Weight (if known from caretaker): 76 lbs.

Color on length-based tape: Green

Medication needed: Epinephrine, Amiodarone

Appropriate dose for patient: Epi: 0.3 mg (1:10,000), 3 ml

Amiodarone: 150 mg (150 ml/3 ml), 3 ml

Dilution requirements: No dilution required



1903 Marquette Ave, Suite J 102, Muskegon, MI 49442

Lesson Plan: Virtual Peds Med Admin

Scenario: 6-year-old, chest fluttering, in persistent SVT at a rate of 210

History: No medical history

Weight (if known from caretaker): 50 lbs.

Color on length-based tape: Blue

Medication needed: Adenosine (with MCA order)

Appropriate dose for patient: 2.5 mg/0.8 ml, followed immediately with 10 ml NS flush

Dilution requirements: No dilution required

Scenario: 33-month-old, dehydrated, semi-responsive

History: Has been sick for 3 days, fever off-and-on, today has been less responsive

Weight (if known from caretaker): 30 lbs.

Color on length-based tape: Yellow

Medication needed: Normal Saline 0.9%

Appropriate dose for patient: 250 ml IV/IO

Dilution requirements: No dilution required