

Memorial EMS  
Decatur Memorial EMS  
Springfield Memorial EMS

## Ketamine Dosing

The formula for calculating IBW is:

*Men* = 50 kg + 2.3 kg for every inch over 5 foot tall.

### Males

| Hgt   | Kgs  | Pain Control 0.3mg/kg IV/IO | Chemical Restraint 4mg/kg IM only | Medication assisted Intubation 2mg/kg IV/IO |
|-------|------|-----------------------------|-----------------------------------|---------------------------------------------|
| 5'0"  | 50   | 15mg 0.3 mL                 | 200mg 4 mL                        | 100mg 2 mL                                  |
| 5'1"  | 52.3 | 15mg 0.3 mL                 | 200mg 4 mL                        | 100mg 2 mL                                  |
| 5'2"  | 54.6 | 15mg 0.3 mL                 | 200mg 4 mL                        | 100mg 2 mL                                  |
| 5'3"  | 56.9 | 15mg 0.3 mL                 | 200mg 4 mL                        | 100mg 2 mL                                  |
| 5'4"  | 59.2 | 20mg 0.4 mL                 | 250mg 5 mL                        | 125mg 2.5 mL                                |
| 5'5"  | 61.5 | 20mg 0.4 mL                 | 250mg 5 mL                        | 125mg 2.5 mL                                |
| 5'6"  | 63.8 | 20mg 0.4 mL                 | 250mg 5 mL                        | 125mg 2.5 mL                                |
| 5'7"  | 66.1 | 20mg 0.4 mL                 | 250mg 5 mL                        | 125mg 2.5 mL                                |
| 5'8"  | 68.4 | 20mg 0.4mL                  | 250mg 5 mL                        | 125mg 2.5 mL                                |
| 5'9"  | 70.7 | 20mg 0.4mL                  | 300mg 6 mL                        | 150mg 3 mL                                  |
| 5'10" | 73   | 20mg 0.4mL                  | 300mg 6 mL                        | 150mg 3 mL                                  |
| 5'11" | 75.3 | 25mg 0.5mL                  | 300mg 6 mL                        | 150mg 3 mL                                  |
| 6'0"  | 77.6 | 25mg 0.5mL                  | 300mg 6 mL                        | 150mg 3 mL                                  |
| 6'1"  | 79.9 | 25mg 0.5mL                  | 300mg 6 mL                        | 150mg 3 mL                                  |
| 6'2"  | 82.2 | 25mg 0.5mL                  | 350 mg 7 mL                       | 175mg 3.5 mL                                |
| 6'3"  | 84.5 | 25mg 0.5mL                  | 350 mg 7 mL                       | 175mg 3.5 mL                                |
| 6'4"  | 86.8 | 30mg 0.6mL                  | 350 mg 7 mL                       | 175mg 3.5mL                                 |
| 6'5"  | 89.1 | 30mg 0.6mL                  | 400mg 8 mL                        | 200mg 4.0mL                                 |
| 6'6"  | 91.4 | 30mg 0.6mL                  | 400mg 8 mL                        | 200mg 4.0mL                                 |
| 6'7"  | 93.7 | 30mg 0.6mL                  | 400mg 8 mL                        | 200mg 4.0mL                                 |

*Applicable for Ketamine 500mg/10ml concentration only*

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## Ketamine Dosing

The formula for calculating IBW is:

Women = 45.5 kg + 2.3 kg for every inch over 5 foot tall.

### Females

| Hgt   | Kgs  | Pain Control 0.3mg/kg IV/IO | Chemical Restraint 4mg/kg IM only | Medication Assisted Intubation 2mg/kg IV/IO |
|-------|------|-----------------------------|-----------------------------------|---------------------------------------------|
| 4'8"  | 36.3 | 10mg 0.2 mL                 | 150mg 3 mL                        | 75mg 1.5 mL                                 |
| 4'9"  | 38.6 | 10mg 0.2 mL                 | 150mg 3 mL                        | 75mg 1.5 mL                                 |
| 4'10" | 40.9 | 10mg 0.2 mL                 | 150mg 3 mL                        | 75mg 1.5 mL                                 |
| 4'11" | 43.2 | 15mg 0.3 mL                 | 150mg 3 mL                        | 75mg 1.5 mL                                 |
| 5'0"  | 45.5 | 15mg 0.3 mL                 | 200mg 4 mL                        | 100mg 2 mL                                  |
| 5'1"  | 47.8 | 15mg 0.3 mL                 | 200mg 4 mL                        | 100mg 2 mL                                  |
| 5'2"  | 50.1 | 15mg 0.3 mL                 | 200mg 4 mL                        | 100mg 2 mL                                  |
| 5'3"  | 52.4 | 15mg 0.3 mL                 | 200mg 4 mL                        | 100mg 2 mL                                  |
| 5'4"  | 54.7 | 15mg 0.3 mL                 | 200mg 4 mL                        | 100mg 2 mL                                  |
| 5'5"  | 57   | 15mg 0.3 mL                 | 200mg 4 mL                        | 100mg 2 mL                                  |
| 5'6"  | 59.3 | 20mg 0.4 mL                 | 250mg 5 mL                        | 125mg 2.5 mL                                |
| 5'7"  | 61.6 | 20mg 0.4 mL                 | 250mg 5 mL                        | 125mg 2.5 mL                                |
| 5'8"  | 63.9 | 20mg 0.4 mL                 | 250mg 5 mL                        | 125mg 2.5 mL                                |
| 5'9"  | 66.2 | 20mg 0.4 mL                 | 250mg 5 mL                        | 125mg 2.5 mL                                |
| 5'10" | 68.5 | 20mg 0.4 mL                 | 250mg 5 mL                        | 125mg 2.5 mL                                |
| 5'11" | 70.8 | 20mg 0.4 mL                 | 300mg 6 mL                        | 150mg 3 mL                                  |
| 6'0"  | 73.1 | 25mg 0.5ml                  | 300mg 6 mL                        | 150mg 3ml                                   |
| 6'1"  | 75.4 | 25mg 0.5ml                  | 350mg 7 ml                        | 175mg 3.5ml                                 |
| 6'2"  | 77.7 | 25mg 0.5ml                  | 350mg 7 ml                        | 175mg 3.5ml                                 |
| 6'3"  | 80   | 25mg 0.5ml                  | 350mg 7 ml                        | 175mg 3.5ml                                 |
| 6'4"  | 82.3 | 25mg 0.5ml                  | 350mg 7 ml                        | 175mg 3.5ml                                 |

*Applicable for Ketamine 500mg/10ml concentration only*

## Quick Reference Peds Weight/ Vital Signs

**\*\*Per Memorial EMS System Protocol, DO NOT EXCEED THE ADULT DOSE WHEN ADMINISTERING PEDIATRIC MEDICATIONS.**

Approximate weight based on age:

| <u>Age</u> | <u>Weight</u>  |
|------------|----------------|
| Newborn    | 3 kg / 7 lbs   |
| 2 months   | 5 kg / 8 lbs   |
| 6 months   | 7 kg / 15 lbs  |
| 1 year     | 10 kg / 22 lbs |
| 5 years    | 20 kg / 44 lbs |
| 10 years   | 30 kg / 66 lbs |
| 15 years   | Adult values   |

| Normal Pediatric Vital Sign Ranges |             |                  |                        |
|------------------------------------|-------------|------------------|------------------------|
|                                    | Heart Rate  | Respiratory Rate | Minimum Blood Pressure |
| Infant                             | 100-160 bpm | 30-60 rpm        | > 60mmHg systolic      |
| Toddler                            | 90-150 bpm  | 24-40 rpm        | > 70mmHg systolic      |
| Preschooler                        | 80-140 bpm  | 22-34 rpm        | > 75mmHg systolic      |
| School Age                         | 70-120 bpm  | 18-30rpm         | > 80mmHg systolic      |
| Adolescent                         | 60-100 bpm  | 12-16 rpm        | > 90mmHg systolic      |

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### Quick Reference Peds Morphine/Fentanyl Dosing

|                         |                                                                                                                                                                                                                                                                                                           |
|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Morphine Sulfate</b> | 0.1mg/kg IV/IM ( <b>Max single dose: 4 mg</b> ) every 15 minutes (I.V.) and 30 minutes (I.M.) to reduce the patient's anxiety and severity of pain.                                                                                                                                                       |
| <b>Fentanyl</b>         | 1mcg/kg IV over 2 minutes for pain ( <b>Max single dose: 50mcg</b> ).<br>Fentanyl 1mcg/kg may be repeated every 15 minutes (I.V.).<br>If unable to establish IV access may administer Intranasal Fentanyl.<br>( <b>Max single dose: 100mcg Intranasal</b> ).<br><i>See intranasal dosing sheet below.</i> |

| Intranasal <b>Fentanyl</b> Dosing Chart |                  |                   |
|-----------------------------------------|------------------|-------------------|
| Patient Weight                          | Dosage (2mcg/kg) | Dead Space Volume |
| 3-5kg (6-11 Lbs)                        | 10 mcg (0.2 ml)  | (+0.1 ml)         |
| 6-10kg (13-22 Lbs)                      | 20 mcg (0.4. ml) | (+0.1 ml)         |
| 11-15kg (24-33 Lbs)                     | 30 mcg (0.6 ml)  | (+0.1 ml)         |
| 16-20kg (35-44 Lbs)                     | 40 mcg (0.8 ml)  | (+0.1 ml)         |
| 21-25kg (46-55 Lbs)                     | 50 mcg (1.0 ml)  | (+0.1 ml)         |
| 26-30kg (57-66 Lbs)                     | 60 mcg (1.2 ml)  | (+0.1 ml)         |
| 31-35kg (68-77 Lbs)                     | 70 mcg (1.4 ml)  | (+0.1 ml)         |
| 36-40kg (79-88 Lbs)                     | 80 mcg (1.6 ml)  | (+0.1 ml)         |
| 41-45kg (90-99 Lbs)                     | 90 mcg (1.8 ml)  | (+0.1 ml)         |
| 46-50kg (101-110 Lbs)                   | 100 mcg (2.0 ml) | No Extra          |
| 51-55kg (112-121 Lbs)                   | 100 mcg (2.0 ml) | No Extra          |
| 56-60kg (123-132 Lbs)                   | 100 mcg (2.0 ml) | No Extra          |
| 61-70kg (134-154 Lbs)                   | 100 mcg (2.0 ml) | No Extra          |
| 71-80kg (156-176 Lbs)                   | 100 mcg (2.0 ml) | No Extra          |
| 81-90kg (178-198 Lbs)                   | 100 mcg (2.0 ml) | No Extra          |
| 91-100kg (200-220 Lbs)                  | 100 mcg (2.0 ml) | No Extra          |

\*\*Max 1 ml per nare

## Quick Reference Peds Versed Dosing

| Intranasal Midazolam (Versed) Dosing Chart |                  |                       |           |                        |           |
|--------------------------------------------|------------------|-----------------------|-----------|------------------------|-----------|
| Patient Age                                | Weight           | 5mg/5mL Concentration |           | 10mg/2mL Concentration |           |
| (years)                                    |                  | Dose (mg)             | Dose (mL) | Dose (mg)              | Dose (mL) |
| Neonate                                    | 3kg (6) Lbs      | 0.6 mg                | 0.7 ml    | 0.6 mg                 | 0.3 mL    |
| < 1 yr.                                    | 6kg (13) Lbs     | 1.2 mg                | 1.3 ml    | 1.2 mg                 | 0.4 mL    |
| 1                                          | 10kg (22) Lbs    |                       |           | 2.0 mg                 | 0.5 mL    |
| 2                                          | 14kg (30) Lbs    |                       |           | 2.8 mg                 | 0.7 mL    |
| 3                                          | 16 kg (35) Lbs   |                       |           | 3.2 mg                 | 0.8 mL    |
| 4                                          | 18kg (40) Lbs    |                       |           | 3.6 mg                 | 0.9 mL    |
| 5                                          | 20kg (44) Lbs    |                       |           | 4.0 mg                 | 1.0 mL    |
| 6                                          | 22kg (48) Lbs    |                       |           | 4.4 mg                 | 1.0 mL    |
| 7                                          | 24kg (53) Lbs    |                       |           | 4.8 mg                 | 1.1 mL    |
| 8                                          | 26kg (57) Lbs    |                       |           | 5.2 mg                 | 1.2 mL    |
| 9                                          | 28kg (62) Lbs    |                       |           | 5.6 mg                 | 1.3 mL    |
| 10                                         | 30kg (66) Lbs    |                       |           | 6.0 mg                 | 1.4 mL    |
| 11                                         | 32kg (70) Lbs    |                       |           | 6.4 mg                 | 1.4 mL    |
| 12                                         | 34kg (75) Lbs    |                       |           | 6.8 mg                 | 1.5 mL    |
| Small Teenager                             | 40kg (88) Lbs    |                       |           | 8.0 mg                 | 1.8 mL    |
| Full Grown Teen or Adult                   | >50kg (>110) Lbs |                       |           | 10.0 mg                | 2.0 mL    |

**Midazolam (Versed): 0.2mg/kg IM**  
(Max single dose: 5mg)  
**Midazolam (Versed): 0.1mg/kg IV/IO**  
(Max single dose: 2.5 mg)  
over 1 minute for seizure activity.

## Pediatric Cyanokit dosing

## Pediatric Cyanokit dosing

| COLOR  | DOSE                  | WEIGHT |
|--------|-----------------------|--------|
| GREY   | 14 ml _____ (350mg)   | 5 KG   |
| PINK   | 20 ml _____ (490mg)   | 7 KG   |
| RED    | 25 ml _____ (630mg)   | 9 KG   |
| PURPLE | 31 ml _____ (770mg)   | 11 KG  |
| YELLOW | 39 ml _____ (980mg)   | 14 KG  |
| WHITE  | 50 ml _____ (1260mg)  | 18 KG  |
| BLUE   | 62 ml _____ (1540mg)  | 22 KG  |
| ORANGE | 78 ml _____ (1960mg)  | 28 KG  |
| GREEN  | 100 ml _____ (2520mg) | 36 KG  |

!!MUST USE A SYRINGE TO PUSH OVER 15 MINUTES!!

**ADULT DOSE IS 200ml over 15mins IV (5000mg)**

## Post ROSC Cardiac Arrest Checklist

- ☐ ASSESS CO<sub>2</sub> (should be >20 with good waveform).
- ☐ FINGER on pulse maintain, for 5 minutes. DO NOT TRANSPORT; prepare for transport during the 5-minute waiting period.
- ☐ Continuous visualization of cardiac monitor rhythm.
- ☐ Check O<sub>2</sub> supply and pulse Ox to TITRATE to SaO<sub>2</sub> 94-99%.
- ☐ Do not try to obtain a “normal” ETCO<sub>2</sub> by increasing respiratory rate.
- ☐ Obtain 12 lead EKG, send for consult or STAT STEMI if possible, concern for STEMI on EKG, expedite CONTROLLED movement for transport; prepare for transport during the 5-minute waiting period.
- ☐ Assess for & TREAT bradycardias < 60 bpm.
- ☐ IVF set-up on pressure bag in preparation for hypotension.
- ☐ Prepare (spike) Norepinephrine in preparation for hypotension.
- ☐ Obtain B/P -- Norepinephrine indicated for SBP < 90mmHg or MAP < 65mmHg.
- ☐ Evaluate for post-resuscitative airway placement (e.g., ETT).
- ☐ If available place mechanical CPR device on patient before movement, in anticipation of possible re-arrest during transport.
- ☐ When patient is moved, perform CONTINUOUS PULSE CHECK and MONITORING of cardiac rhythm – pads must be on patient before any movement.
- ☐ Mask is available for BVM in case advanced airway fails.
- ☐ Once in the ambulance, confirm pulse, breath sounds, SpO<sub>2</sub>, EtCO<sub>2</sub>, and cardiac rhythm.
- ☐ Appropriate personnel and number of personnel for transport in case of re-arrest.

## Oxygen Consumption Calculator

In EMS, Oxygen consumption and the time it takes to deplete an Oxygen tank are dependent on multiple factors, including tank size, tank pressure, percentage of Oxygen being administered (in some cases), and rate of consumption (LPM). This appendix will help the EMS professional in determining the Oxygen consumption for the safe transport of a patient requiring Oxygen therapy. Please note: To safely transport a patient, the EMS crew must factor 150% of transport time. This will allow for adverse weather conditions, traffic issues, and any other potential delays a crew could encounter.

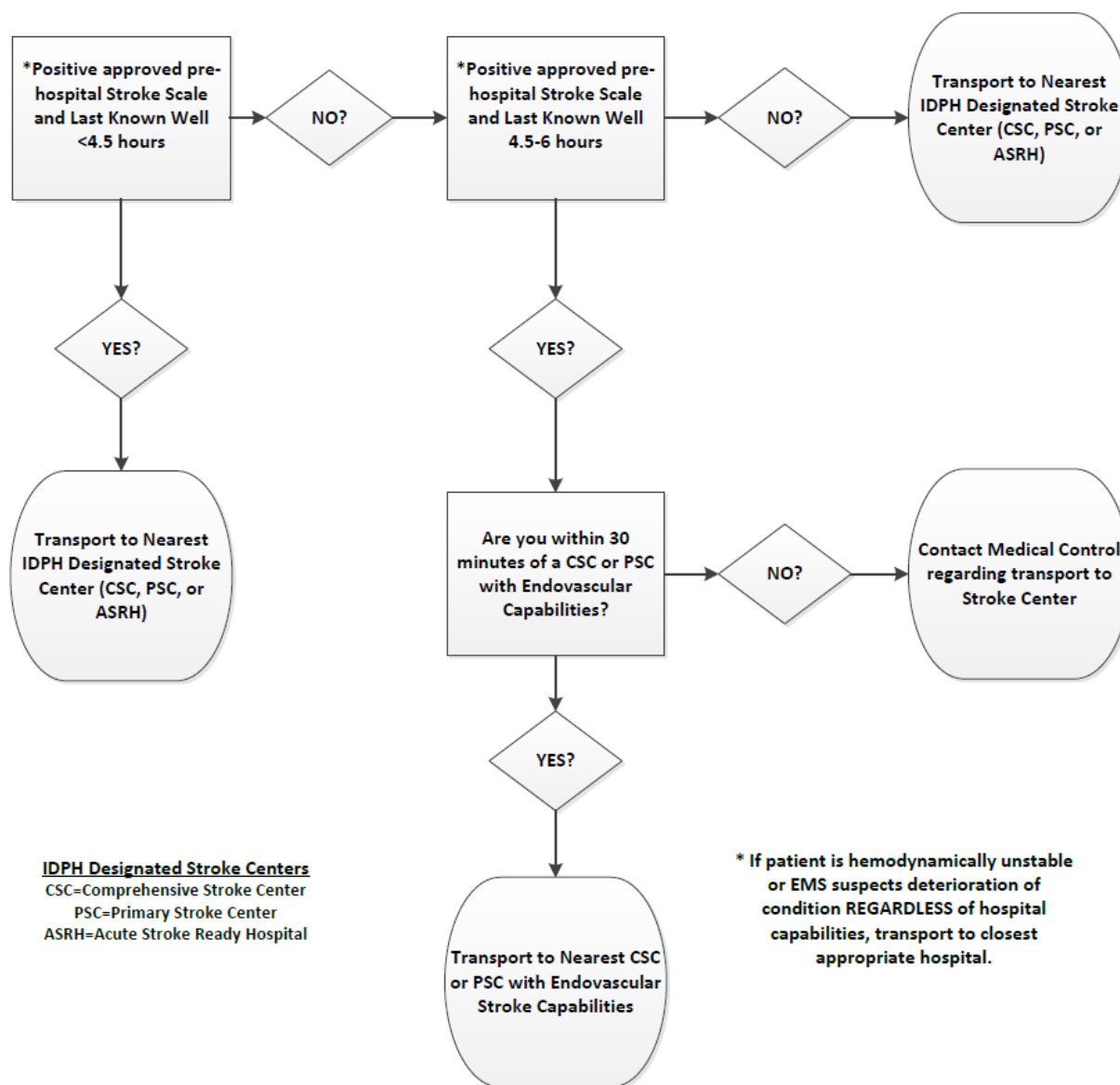
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## Suspected Stroke Protocol

### Region 3 Stroke Transfer Protocol

Approved by: EMS Regional committee  
Date: 7.16.2014



<http://www.ihatoday.org/health-care-issues/hospital-preparedness.aspx>

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**Emergency Childbirth Record**  
(Complete and attach to the newborn patient care record)

1. Presentation (head or feet): \_\_\_\_\_
2. Date of Birth: \_\_\_\_\_
3. Time of Birth (*military time*): \_\_\_\_\_
4. Nuchal Cord:   **YES**       **NO**       # of times cord wrapped around neck: \_\_\_\_\_
5. Time membranes ruptured (*military time*): \_\_\_\_\_
6. Appearance of amniotic fluid:   **CLEAR (Cloudy)**   **MECONIUM**   **BLOOD-TINGED**
7. **APGAR Score:** Must be completed at **1 minute** and again at **5 minutes**.

| <i>Element</i>                | <i>0</i>                        | <i>1</i>                    | <i>2</i>           | <i>1 minute Score</i> | <i>5 minute Score</i> |
|-------------------------------|---------------------------------|-----------------------------|--------------------|-----------------------|-----------------------|
| <b>Appearance (Color)</b>     | Body and extremities blue, pale | Body pink, extremities blue | Completely pink    |                       |                       |
| <b>Pulse rate</b>             | Absent                          | < 100 bpm                   | > 100 bpm          |                       |                       |
| <b>Grimace (Irritability)</b> | No response                     | Grimace                     | Cough, sneeze, cry |                       |                       |
| <b>Activity (Muscle tone)</b> | Limp                            | Some flexion of extremities | Active motion      |                       |                       |
| <b>Respirations</b>           | Absent                          | Slow and irregular          | Strong cry         |                       |                       |
| <b>TOTAL SCORE:</b>           |                                 |                             |                    |                       |                       |

8. Time placenta delivered (*military time*): \_\_\_\_\_ **INTACT**   **NOT INTACT**
9. Number of vessels in cord: \_\_\_\_\_
10. Infant resuscitation:   **STIMULATION only**       **OXYGEN**       **O<sub>2</sub> with BVM**
  - **CPR**   Time CPR began: \_\_\_\_\_ Time CPR terminated: \_\_\_\_\_
11. Remarks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
12. Signature & ID# of Paramedic/EMT: 1. \_\_\_\_\_ 2. \_\_\_\_\_