

COMPLICATIONS OF DELIVERY

EMT:

BREECH DELIVERY:

- 1) High Flow O2 and assist as needed.
- 2) If breech obvious, transport ASAP.
- 3) Place mother supine or in Trendelenburg.
- 4) If delivery occurs during transport:
- 5) Allow mother to push. Gently extract baby. **DO NOT PULL.**
- 6) Support delivered body and extremities on your hand and arm.
- 7) If head not delivered, place gloved hand in vagina to form a "V" Around baby's mouth and nose, should it begin to breath.
- 8) Perform the Mauriceau maneuver for deliver of head:
fingers of left hand inserted into infant's mouth or over mandible.
fingers of right hand curved over infant's shoulders.
- 9) Assistant exerts suprapubic pressure on head.

CORD WRAPPED AROUND NECK:

- 1) Gently attempt to loosen cord.
- 2) With two (2) fingers behind baby's neck, try to slip cord forward over baby's upper (anterior) shoulder and head. If unsuccessful, attempt to slip under lower shoulder and over head
- 3) If unsuccessful, clamp cord with two (2) clamps, cut between clamps, and carefully unwrap cord from around neck.
- 4) Assist delivery.

PROLAPSED CORD:

- 1) High Flow O2 and assist as needed.
- 2) Place mother in knee-chest position or extreme Trendelenburg.
- 3) Insert gloved hand into vagina and gently lift head/body off of the cord.
- 4) Observe cord for pulsations, and continue until relieved by hospital staff.

AEMT/PARAMEDIC:

As above

- 1) **Cardiac Monitor** for any mother with complications.
- 2) IV Isotonic Solution TKO
- 3) **Consider 200 ml bolus** May repeat up 20ml/kg in 200 ml increments if lungs sounds are clear.

(Continued Next Page)

COMPLICATIONS OF DELIVERY
(Continued)

ABRUPTIO PLACENTA/ PLACENTA PREVIA

EMT:

- 1) High Flow O2 and assist as needed
- 2) Transport ASAP
- 3) Contact receiving hospital en route.

AEMT/PARAMEDIC:

As above

- 4) Cardiac monitor.
- 5) **IV Isotonic Solution.**
- 6) **Consider 200 ml bolus** May repeat up 20ml/kg in 200 ml increments if lungs sounds are clear.

POSTPARTUM HEMORRHAGE:

EARLY: Usually due to uterine atony or tears of the cervix.

LATE: (7-10 days) Retained placental parts.

EMT:

- 1) High Flow O2 and assist as needed.
- 2) Pad on peritoneum, DO NOT insert anything in the vaginal opening.
- 3) External uterine massage (elevate and firm pressure).
- 4) Transport ASAP

AEMT/PARAMEDIC:

As above

- 5) Cardiac monitor.
- 6) Large bore IV Isotonic Solution
- 7) **Consider 200 ml bolus** May repeat up 20ml/kg in 200 ml increments if lungs sounds are clear.

(End)

EMERGENCY DELIVERY

EMT:

- 1) High Flow O2 and assist as needed.
- 2) Place mother supine.
- 3) Apply gentle counterpressure to baby's head as it delivers.
- 4) As soon as head delivers, suction baby's mouth and nose with bulb syringe.
- 5) Assist delivery of shoulders and rest of body.
- 6) After delivery, clamp cord, using 2 clamps 6" from baby's body. Cut cord between clamps.
- 7) Dry baby off and keep baby warm. Clear airway.
- 8) Let placenta deliver normally. Do not pull on cord.
- 9) Place delivered placenta in plastic bag for transport.
- 10) After delivery of placenta massage uterus firmly.
- 11) Examine perineum for tears. Apply direct pressure with gauze to any bleeding tears. Do not pack vagina.
- 12) Estimate blood loss.
- 13) Transport Mother and Baby ASAP. Do not wait for delivery of placenta.

AEMT/PARAMEDIC:

As above

- 14) Have patient deliver in position of comfort.
- 15) Large bore IV **Isotonic Solution** (time permitting).
- 16) **Consider 200 ml bolus** May repeat up 20ml/kg in 200 ml increments if lungs sounds are clear.

(End)

GENERAL CONSIDERATIONS

EMT/AEMT/PARAMEDIC:

- 1) Most deliveries proceed without complications.
- 2) Most routine uncomplicated pregnancies in labor may be transported with a minimum of ALS intervention.
- 3) Transport most pregnant females in position of comfort.
- 4) If possible, transport unconscious or traumatized third-trimester pregnant females in left lateral decubitus while protecting spine.
- 5) Treat hypotension in the pregnant female aggressively.

(End)

NEONATAL RESUSCITATION

EMT:

- 1) Quickly dry amniotic fluid from head and body. Remove wet linen from contact with baby. Keep baby's body covered.
- 2) Position baby with neck slightly extended and head lower than body. Suction mouth and then nose.
- 3) If thick meconium in amniotic fluid, perform tracheal suctioning, if possible.
- 4) Clamp umbilical cord at least 4-6 inches from umbilicus.
- 5) **EVALUATE RESPIRATIONS HR. & COLOR:**
 - A) Spontaneous breathing, HR > 100 & pink - keep infant warm and observe.
 - B) Spontaneous breathing, HR > 100 & cyanotic - provide 80-100% blow by O₂.
 - C) Spontaneous breathing, HR < 100 - support ventilations with bag valve mask.
 - D) If apneic slap foot, flick or rub back, and reevaluate respirations. If apnea persists, ventilate with bag valve mask.
- 6) Apgar score patient
- 7) **REEVALUATE HEART RATE:**
 - A) HR < 60, continue ventilations at 40-60/min. and initiate chest compressions at 120/min. Reassess after 30 sec.
 - B) HR 60-100 but not increasing, continue ventilations and initiate compressions if HR < 80.
 - C) HR 60-100 and increasing, continue ventilations.
 - D) HR > 100 and spontaneous respiration present, discontinue ventilation, provide tactile stimulation, and monitor patient.
- 8) Transport ASAP

AEMT:

As above

- 9) **Isotonic Solution** IV or IO

PARAMEDIC:

As above

- 10) **Cardiac monitor** (if able)
- 11) **ET tube** if Heart Rate below 80 after 30 seconds
- 12) **Epinephrine 0.01-0.03 mg/kg** If HR < 60/min. after 30 sec. of positive pressure ventilation and chest compressions, repeat q 5 min., as needed.
- 13) **Isotonic Solution 10ml/kg** IV/IO if HR remains < 100, and there is evidence of acute bleeding with signs of hypovolemia,
- 14) If evidence of continuing shock, contact receiving physician for possible administration of **Sodium Bicarbonate or Dopamine.**
- 15) **Narcan 0.1 mg/kg** If respiratory depression and history of narcotics by mother within past 4 hours
- 16) Check glucose level (administer D10W 5-10 ml/kg IV/IO for glucose less than 30 mg/dl.

(End)

**PRE-ECLAMPSIA AND ECLAMPSIA
(Toxemia)**

EMT:

- 1) High flow O₂
- 2) If seizing protect from injury
- 3) Consider calling ALS
- 4) Transport on left side ASAP

AEMT:

As above,

- 5) IV Isotonic Solution TKO
- 6) **Consider 200 ml bolus** May repeat up 20ml/kg in 200 ml increments if lungs sounds are clear.

PARAMEDIC:

As above,

- 7) Cardiac monitor
- 8) If patient seizing **Lorazepam 2-4 mg IV/IM** or **Midazolam 2 - 5 mg IV**.
- 9) **Magnesium sulfate 4 grams** IV slow over 10 to 20 minutes
- 10) Recurrent Seizure **Magnesium Sulfate 2 grams** over 3-5 minutes

(End)

SEXUAL ASSAULT

EMT/AEMT/PARAMEDIC:

- 1) Focused survey
- 2) Treat associated injuries.
- 3) Advise patient not to bathe, douche, etc. If clothing already changed, collect clothing worn during assault and transport to hospital in **paper** bag. Maintain chain of evidence.
- 4) Give emotional support and reassurance to patient. Do not press inquiries if patient unwilling or embarrassed to answer questions.

(End)

SPONTANEOUS ABORTION

EMT:

- 1) Establish last menstrual period.
- 2) Apply loose perineal pad. Collect any tissue passed and bring to hospital
- 3) **High flow O2** if hypotensive
- 4) Transport

AEMT/PARAMEDIC:

As above

- 5) IV Isotonic Solution Large bore
- 6) **Consider 200 ml bolus** May repeat up 20ml/kg in 200 ml increments if lungs sounds are clear.
- 7) Cardiac monitor

(End)

MEDICATIONS FOR NEONATAL RESUSCITATION

<p><u>Epinephrine</u> Concentration: 1:10,000 Preparation: 1 ml Dosage/Route: IV/IO/ET O. 1-0.3 ml/kg Rate/Cautions: Give rapidly</p>	<p style="text-align: center;"><u>Total Dose/infant</u></p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;"><u>Weight</u></th> <th style="text-align: left;"><u>total ml's</u></th> </tr> </thead> <tbody> <tr> <td>1 kg</td> <td>0.1-0.3ml</td> </tr> <tr> <td>2 kg</td> <td>0.2-0.6ml</td> </tr> <tr> <td>3 kg</td> <td>0,3-0,9ml</td> </tr> <tr> <td>4 kg</td> <td>0.4-1,2ml</td> </tr> </tbody> </table>	<u>Weight</u>	<u>total ml's</u>	1 kg	0.1-0.3ml	2 kg	0.2-0.6ml	3 kg	0,3-0,9ml	4 kg	0.4-1,2ml								
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<p><u>Volume Expanders</u> Concentration: Normal Saline Preparation 40 ml Dosage/Route IV/IO 20 ml/kg Rate/Cautions: Give over 5-10 min.</p>	<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;"><u>Weight</u></th> <th style="text-align: left;"><u>total ml's</u></th> </tr> </thead> <tbody> <tr> <td>1 kg</td> <td>20 ml</td> </tr> <tr> <td>2 kg</td> <td>40 ml</td> </tr> <tr> <td>3 kg</td> <td>60 ml</td> </tr> <tr> <td>4 kg</td> <td>80 ml</td> </tr> </tbody> </table>	<u>Weight</u>	<u>total ml's</u>	1 kg	20 ml	2 kg	40 ml	3 kg	60 ml	4 kg	80 ml								
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<p><u>NaHCO₃</u> Concentration: 0.5 mEq/ml Preparation: 20 ml or two 10 ml Prefilled syringes Dosage/Route: IV/IO 2 mEq/kg Rate/Cautions: Give slowly, over at least 2 min. Give only if infant is being effectively ventilated.</p>	<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="3" style="text-align: center;"><u>Total</u></th> </tr> <tr> <th style="text-align: left;"><u>Weight</u></th> <th style="text-align: left;"><u>dose</u></th> <th style="text-align: left;"><u>total ml's</u></th> </tr> </thead> <tbody> <tr> <td>1 kg</td> <td>2 mEq</td> <td>4 ml</td> </tr> <tr> <td>2 kg</td> <td>4 mEq</td> <td>8 ml</td> </tr> <tr> <td>3 kg</td> <td>6 mEq</td> <td>12 ml</td> </tr> <tr> <td>4 kg</td> <td>8 mEq</td> <td>16 ml</td> </tr> </tbody> </table>	<u>Total</u>			<u>Weight</u>	<u>dose</u>	<u>total ml's</u>	1 kg	2 mEq	4 ml	2 kg	4 mEq	8 ml	3 kg	6 mEq	12 ml	4 kg	8 mEq	16 ml
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<p><u>Narcan</u> Concentration: 0.4 mg/ml Preparation: 1 ml Dosage/Route: IV/IO/ET 0.25 ml/kg Rate/Cautions: Give rapidly</p>	<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;"><u>Weight</u></th> <th style="text-align: left;"><u>total ml's</u></th> </tr> </thead> <tbody> <tr> <td>1 kg</td> <td>0.25 ml</td> </tr> <tr> <td>2 kg</td> <td>0.543 ml</td> </tr> <tr> <td>3 kg</td> <td>0.75 ml</td> </tr> <tr> <td>4 kg</td> <td>1.00 ml</td> </tr> </tbody> </table>	<u>Weight</u>	<u>total ml's</u>	1 kg	0.25 ml	2 kg	0.543 ml	3 kg	0.75 ml	4 kg	1.00 ml								
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<p><u>Dopamine</u> Concentration: $\frac{6 \times \text{wt} \times \text{desired dose (kg)} \text{ (mcg/kg/min.)}}{\text{mg of dopamine per 100 ml of solution}} = \text{desired fluid (ml/hr)}$</p> <p>Dosage/Route IV/IO drip Begin at 5 mcg/kg/min. May increase to 20 mcg/kg/min. if necessary.</p>	<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;"><u>Weight</u></th> <th style="text-align: left;"><u>total mcg/min.</u></th> </tr> </thead> <tbody> <tr> <td>1 kg</td> <td>5-20 mcg/min</td> </tr> <tr> <td>2 kg</td> <td>10-40 mcg/min.</td> </tr> <tr> <td>3 kg</td> <td>15-60 mcg/min.</td> </tr> <tr> <td>4 kg</td> <td>20-80 mcg/min.</td> </tr> </tbody> </table>	<u>Weight</u>	<u>total mcg/min.</u>	1 kg	5-20 mcg/min	2 kg	10-40 mcg/min.	3 kg	15-60 mcg/min.	4 kg	20-80 mcg/min.								
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