Childbirth Emergencies

EMS Symposium 2014

Obstetrical Emergencies

These could be the best calls that you will ever go on or the absolute worst nightmares you could ever imagine!

Roles and Responsibilities

Be a Patient Advocate!

Remember the ABCs

Define who does what – teamwork?

No gang questioning!

Listen to the patient

Priority is always patient care!

Definitions

- Apgar score
- Abruptio placenta
- Braxton-Hicks contractions
- Eclampsia
- Ectopic pregnancy
- Meconium staining
- Placenta previa
- PIH
- Pre-eclampsia
- Supine Hypotensive Syndrome
- Toxemia
- Nuchal cord
- Breech presentation
- Prolapsed cord
- Gestational Diabetes

Patient Assessment

- Scene Size-up, Safety, MOI/NOI
- Primary Assessment (Correct life threats!)
  - General Impression
  - ABC's
  - Tx
- History Taking
- Secondary Assessment
- Reassessment

OB Patient History

Vaginal Bleeding Considerations:

Amount?

When and for how long?

Likelihood of pregnancy?

LMP?

Associated with pain, other functions?

Other medical problems?

Obstetric history? (Gravida/Para)

OB Patient History

Abdominal/Pelvic Pain Considerations:

Onset? *When did this start?*

Provocation? *Anything make it worse or better?*

Quality? *Dull ache or sharp pain?*

Radiation? *Does the pain go anywhere?*

Severity? *1-10 Scale (onset & now)*

Time? *How long has it been going on?*

OB Patient Exam

Respect patient modesty

ABCs

Vital signs

Patient medical history

Need to palpate the abdomen!

Minors and parental rights

Stages of Labor

- Stage One – Onset of contractions through full dilation of the cervix
- Stage Two – Delivery of the infant
- Stage Three – Delivery of the placenta

!

Scenario # 1

Dispatched to a 23 year old female complaining of sudden onset of severe abdominal pain with radiation to the right shoulder.

Patient Care

- Patient position of comfort.
- Reassure and provide emotional support.
- Monitor vital signs.
- Control bleeding.
- Oxygen therapy.
- Nothing by mouth.

ALS Indicators for the OB patient

Altered level of consciousness

BP < 90 systolic

Sustained tachycardia > 100 -120

Pelvis pain with high likelihood of unstable condition during transport

Excessive vaginal bleeding

Seizures

OB Emergency Considerations

Remember that you have TWO patients

History is important, don't forget to ask about prenatal care

Third trimester bleeding is not normal

Prepare for the unexpected

Use Dad as the coach (if you can)

Fetal heart tones?

Ask about last time baby movement felt

ALS Indicators for the Obstetrical Patient

Imminent or recent birth
Decreased LOC of mother/newborn
BP<90 systolic or >140 systolic
Third trimester vaginal bleed/pelvic pain
History of complications at birth
Multiple births
Breech presentations
Prolapsed or nuchal cord
Shoulder dystocia
Postpartum hemmorhage

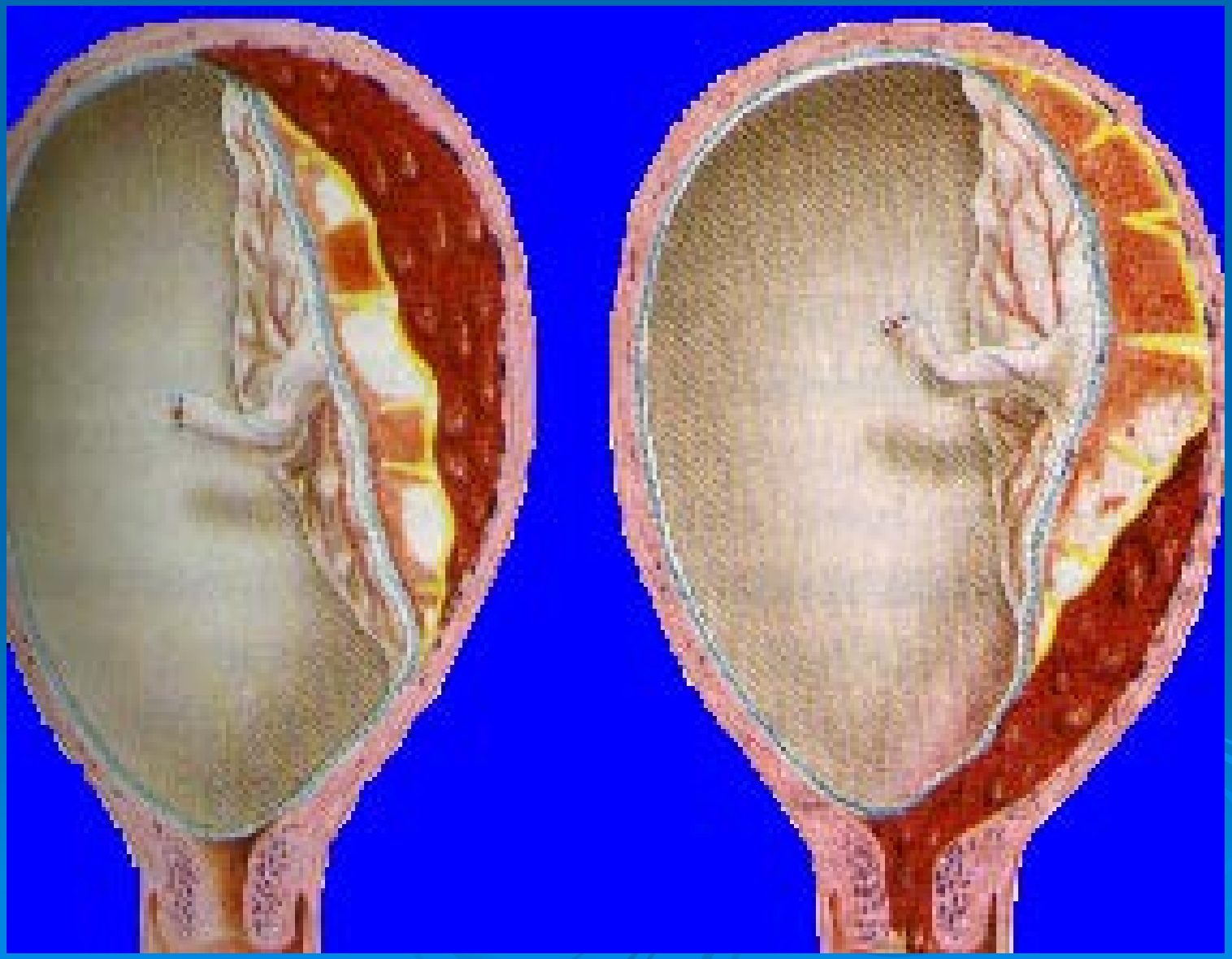
Abruptio Placentae

The partial or complete detachment of a normally implanted placenta at more than 20 weeks.

Occurs in 0.5-2.0% of all pregnancies and will result in fetal death in 1 out of 400 cases of abruption.

Predisposing conditions include maternal hypertension, preeclampsia, multiple births, trauma, and previous abruption

Abrutio Placentae



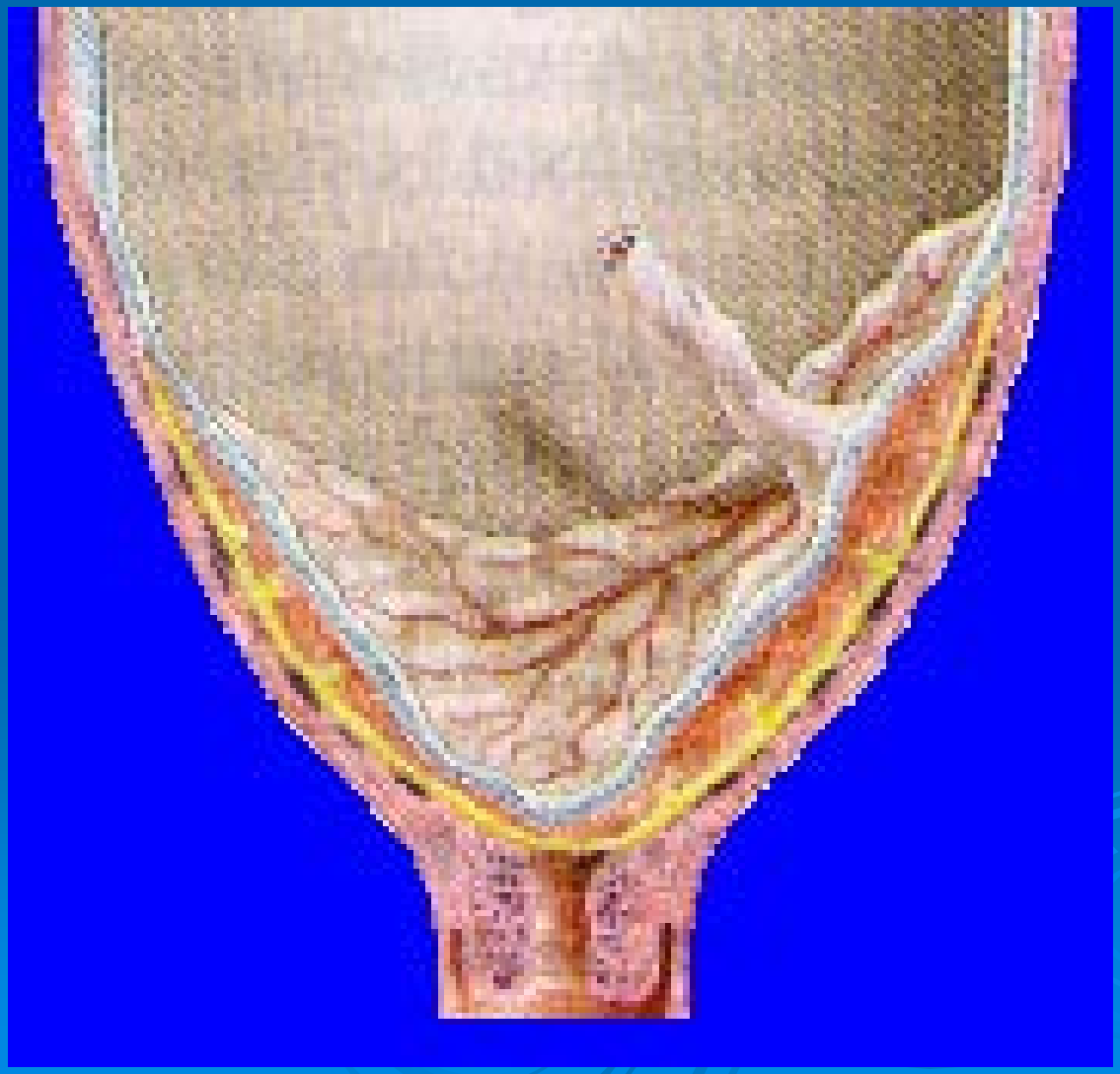
Placenta Previa

Placental implantation in the lower uterine segment encroaching on or covering the cervix.

Occurs in approximately 1 in 200 to 1 in 400 deliveries with the highest incidence in preterm births.

Associated with increased maternal age, multiple births, previous cesarean and placenta previa.

Placenta Previa



Uterine Rupture

Spontaneous or traumatic rupture of the uterine wall.

Occurs in approximately 1 in 1400 deliveries with a 5 – 15% maternal mortality rate and a 50% fetal death rate.

Abdomen is usually rigid with diffuse pain, fetal parts easily palpated through the abdominal wall.

Scenario # 2

Dispatched to a 32 year old female, 26 weeks pregnant, has skipped her last 3 MD visits because of lack of insurance. Patient c/o sudden onset of left-sided, very sharp abdominal pain now with bright red vaginal bleeding.

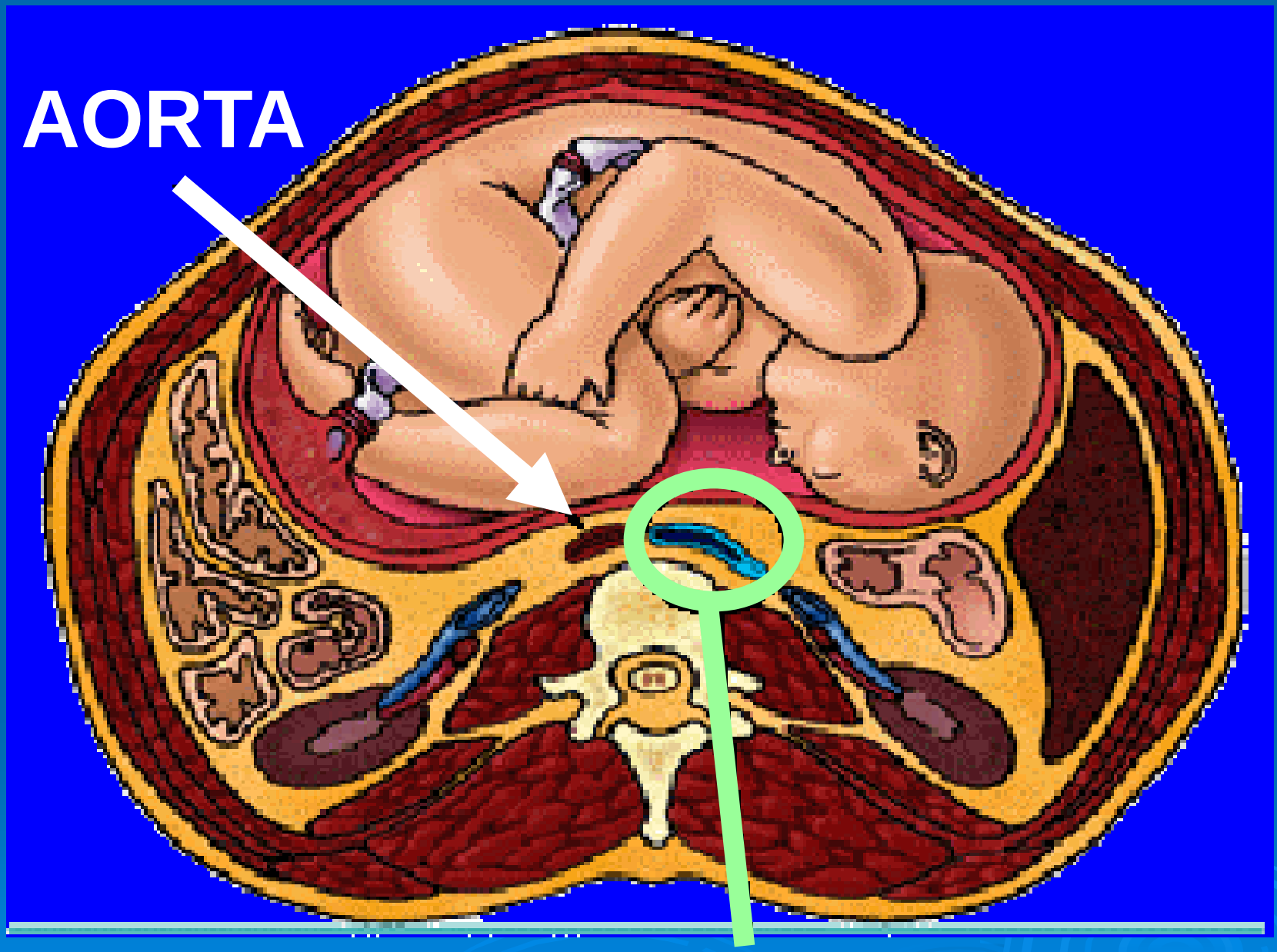
Patient Care

- ABCs
- Oxygen therapy
- Place patient in left lateral recumbent position.
- Control bleeding.
- Monitor vital signs.

Supine Hypotensive Syndrome

Usually occurs in the third trimester of pregnancy, occurs when the gravid uterus compresses the inferior vena cava when the mother lies in a supine position.

Hypotension and dizziness are the main characteristics


AORTA
INFERIOR VENA CAVA

Pre-eclampsia (Toxemia)

Hypertensive disorder of unknown origin that usually occurs in 5 – 8% of all pregnancies.

Responsible for approximately 25% of all maternal and preterm fetal deaths.

Associated with maternal age, chronic HTN, renal disease, diabetes, systemic lupus, and multiple births.

Eclampsia

Characterized by the same signs and symptoms as pre-eclampsia plus seizures or coma.

Scenario # 3

Dispatched to a dental office for a 33 year-old pregnant female, in active seizures.

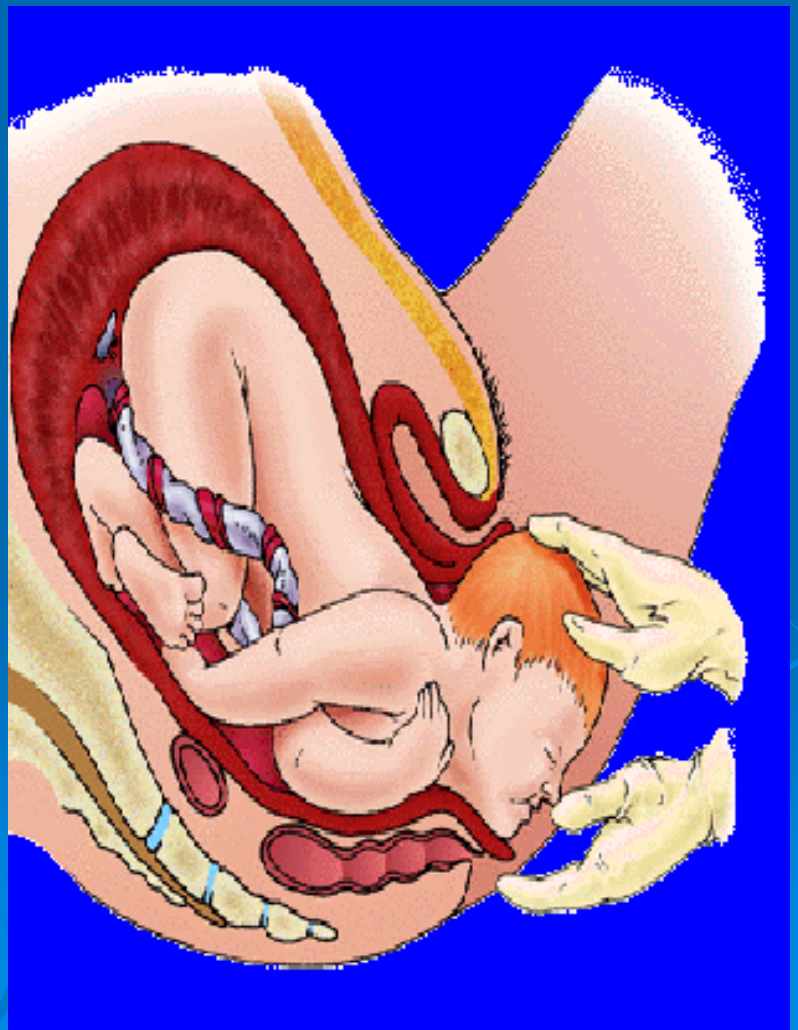
You enter the office and find the patient unconscious/unresponsive in tonic/clonic seizures. The dental staff informs you that the patient is 34 weeks pregnant and her blood pressure prior to the dental procedure was 142/90.

Patient Care

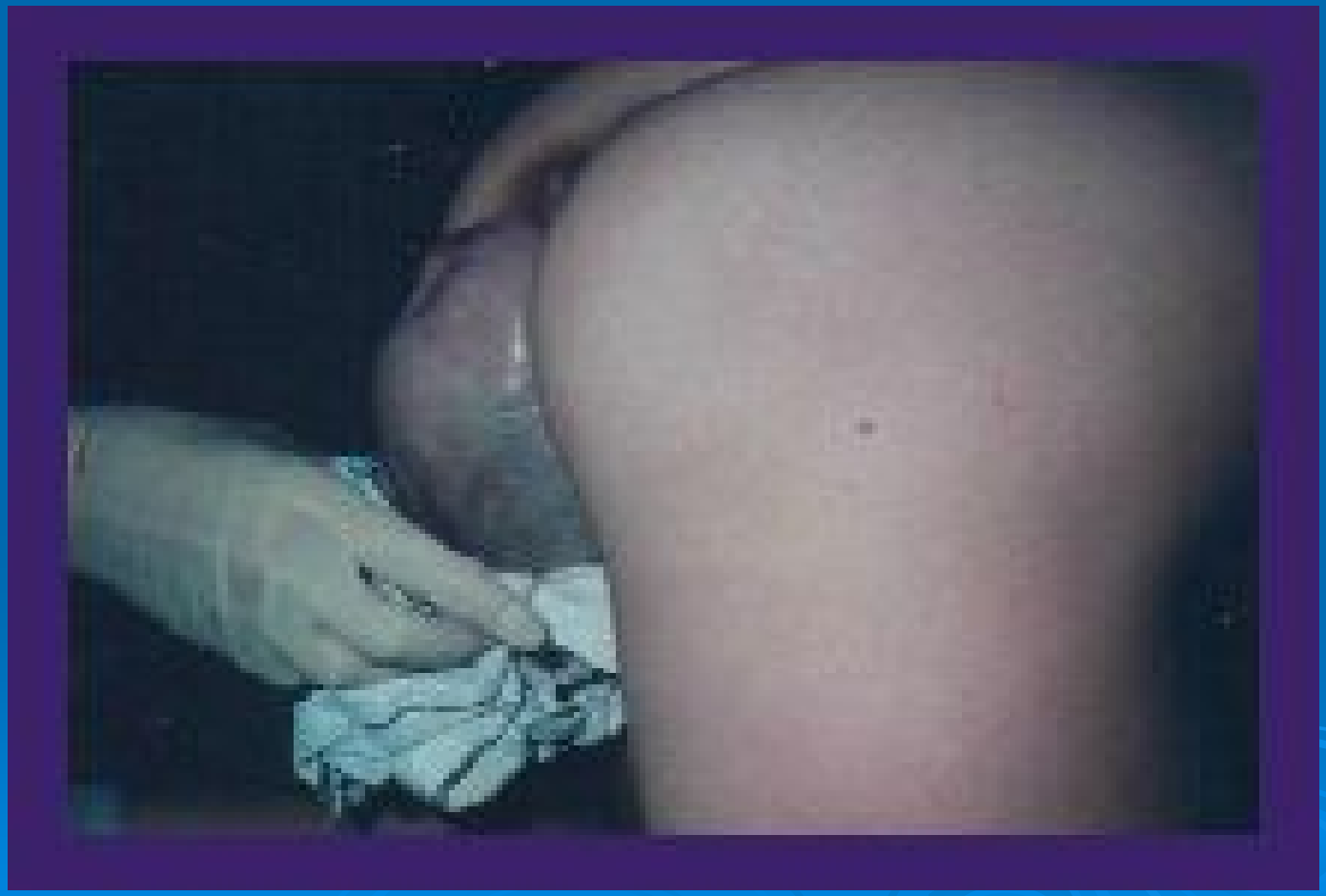
- ABCs
- Oxygen therapy
- Place patient in left lateral recumbent position.
- Handle he patient gently and minimize sensory stimulation to avoid precipitating seizures.
- Blood glucose check?

Imminent Delivery

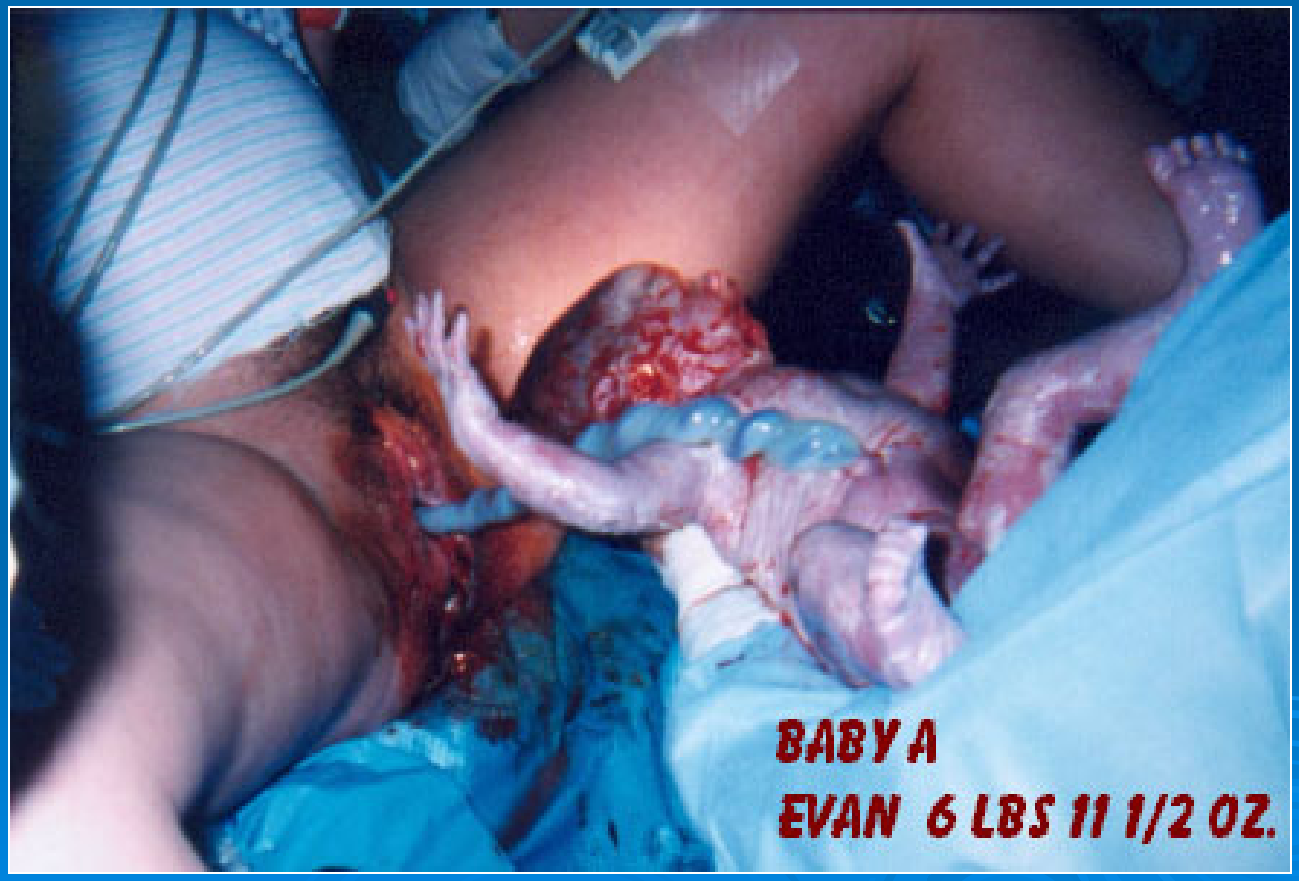
- Crowning or bulging of fetal head at vaginal opening.
- Contractions less than 2 minutes apart.
- Feeling of rectal fullness.
- Feeling of imminent delivery or need to push (especially in a women who has had a child before).
- Water breaking?



Scenario # 4



Now what?



Other Complications to Consider

Premature delivery (under 37 weeks)

Multiple births

Precipitous delivery (spontaneous delivery less than 3 hours from labor to birth)

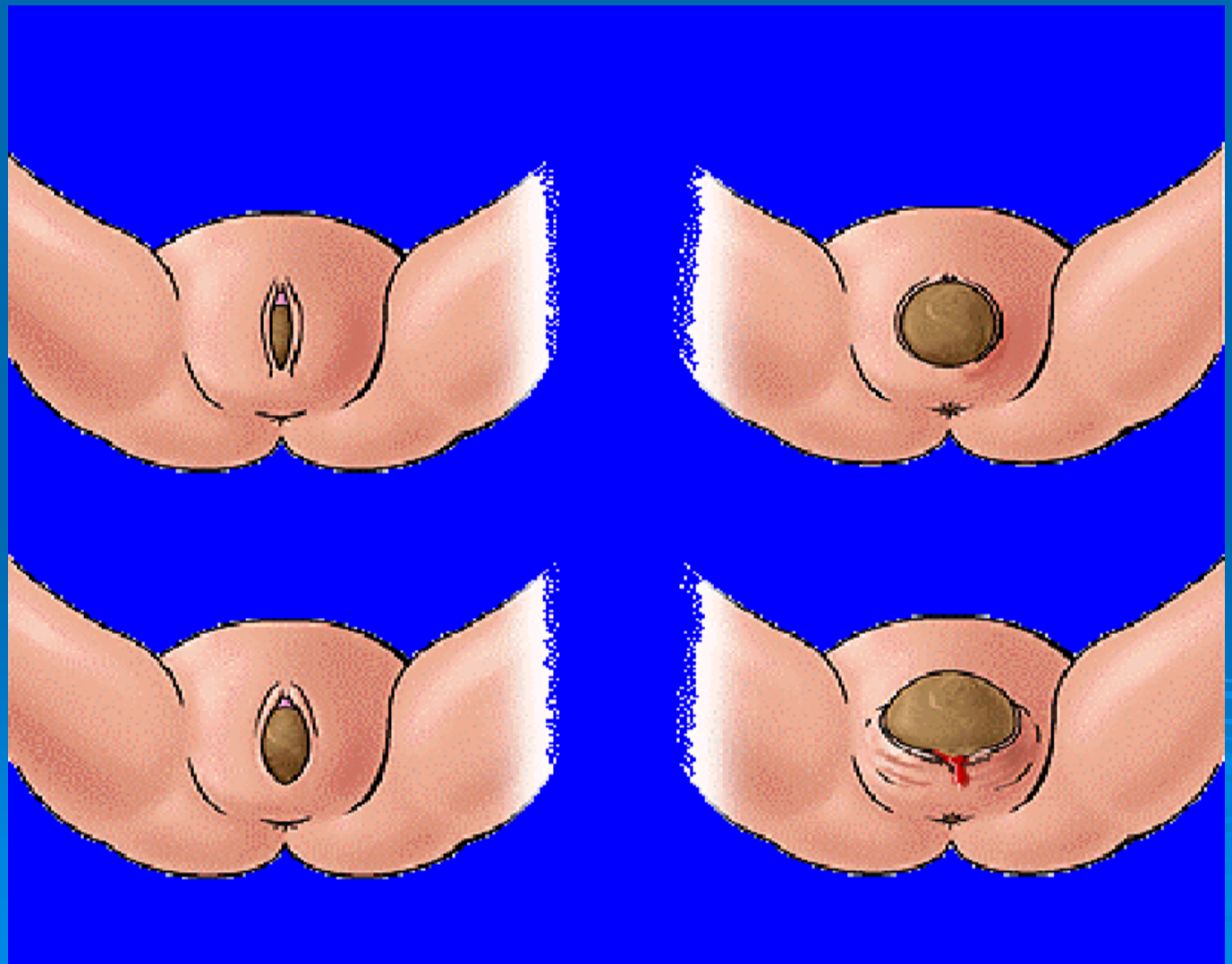
Pulmonary Embolism

(most common cause of maternal death)

Excessive postpartum hemorrhage

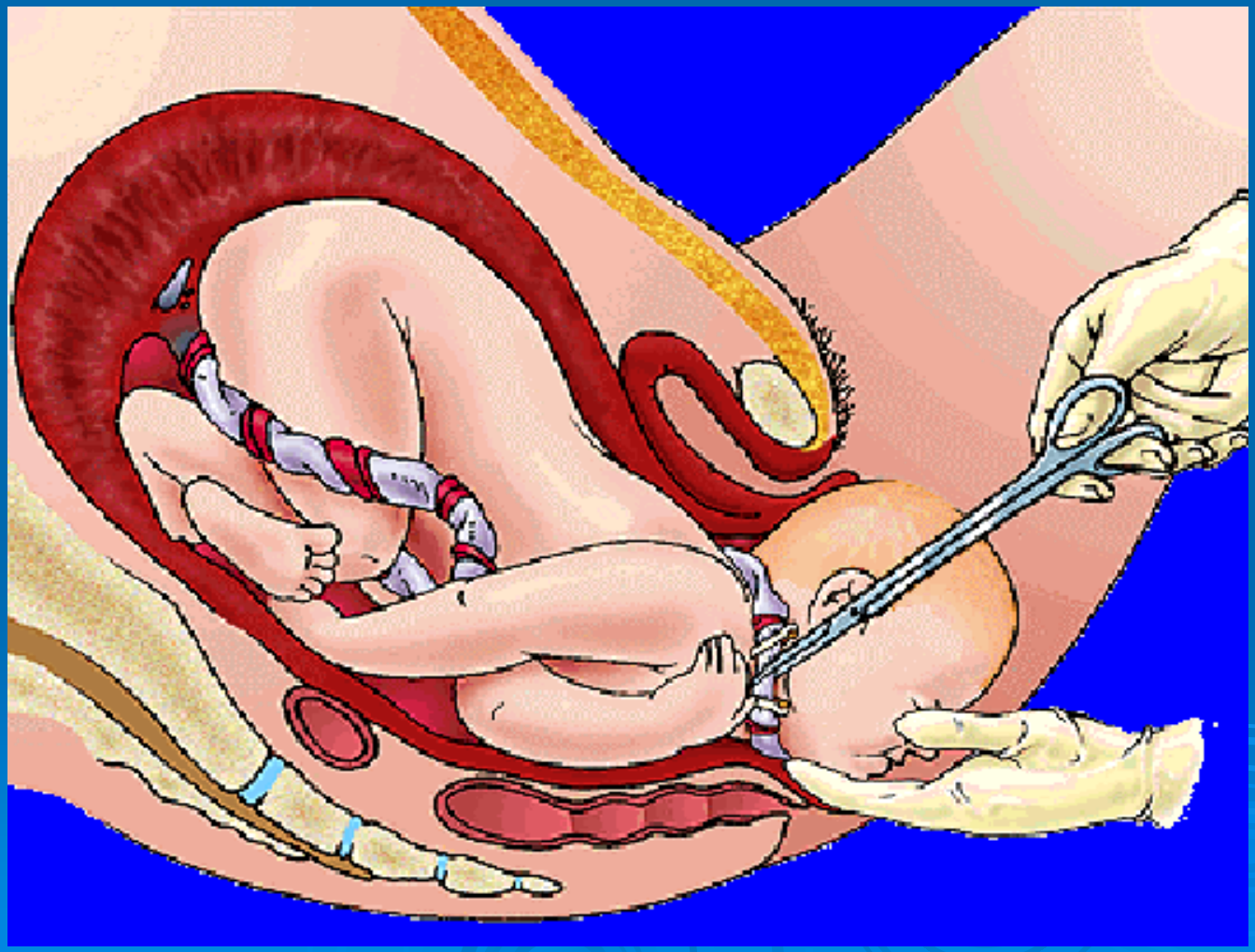
Perineal lacerations

Perineal Lacerations



Nuchal Cord

Potentially Lethal!



Prolapsed Cord

Occurs when the umbilical cord slips down into the vagina or presents externally which can cause fetal asphyxiation.

Occurs in approximately 1 in every 200 pregnancies and should be suspected when fetal distress is present

Most common with breech presentations, premature membrane ruptures, large fetus, long cord, multiple gestation, preterm labor

Scenario # 5

Dispatched to a 28 year old female home alone, first pregnancy, no previous pregnancies, with good prenatal care. Due date > two weeks, mother in good medical health. Was on the toilet when she felt the urge to bear down, water broke, and discovered the following:


A

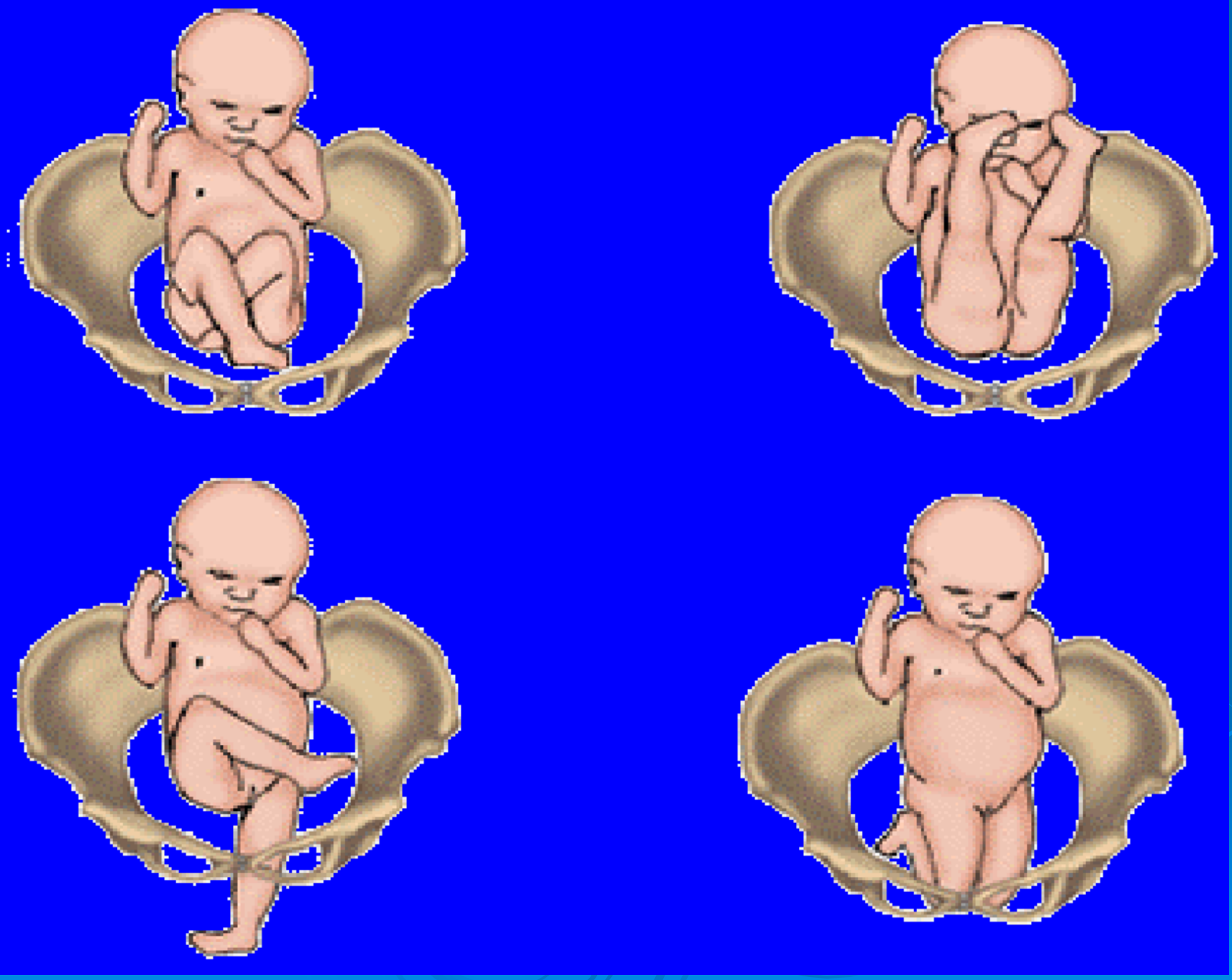
Patient Care

- Place two fingers in vagina to relieve pressure off cord, raising fetus off cord.
- Check cord for pulsations
- Mother in knee-chest or hips elevated position.
- Oxygen therapy
- Transport while keeping pressure off cord.
- Moist dressing to exposed cord, do not push back into vagina.

Breech Presentations

3% of all presentations will be breech: either limb or buttocks, more common in premature infants and with uterine abnormalities.

Increased risk for fetal trauma, anoxia, and prolapsed cord

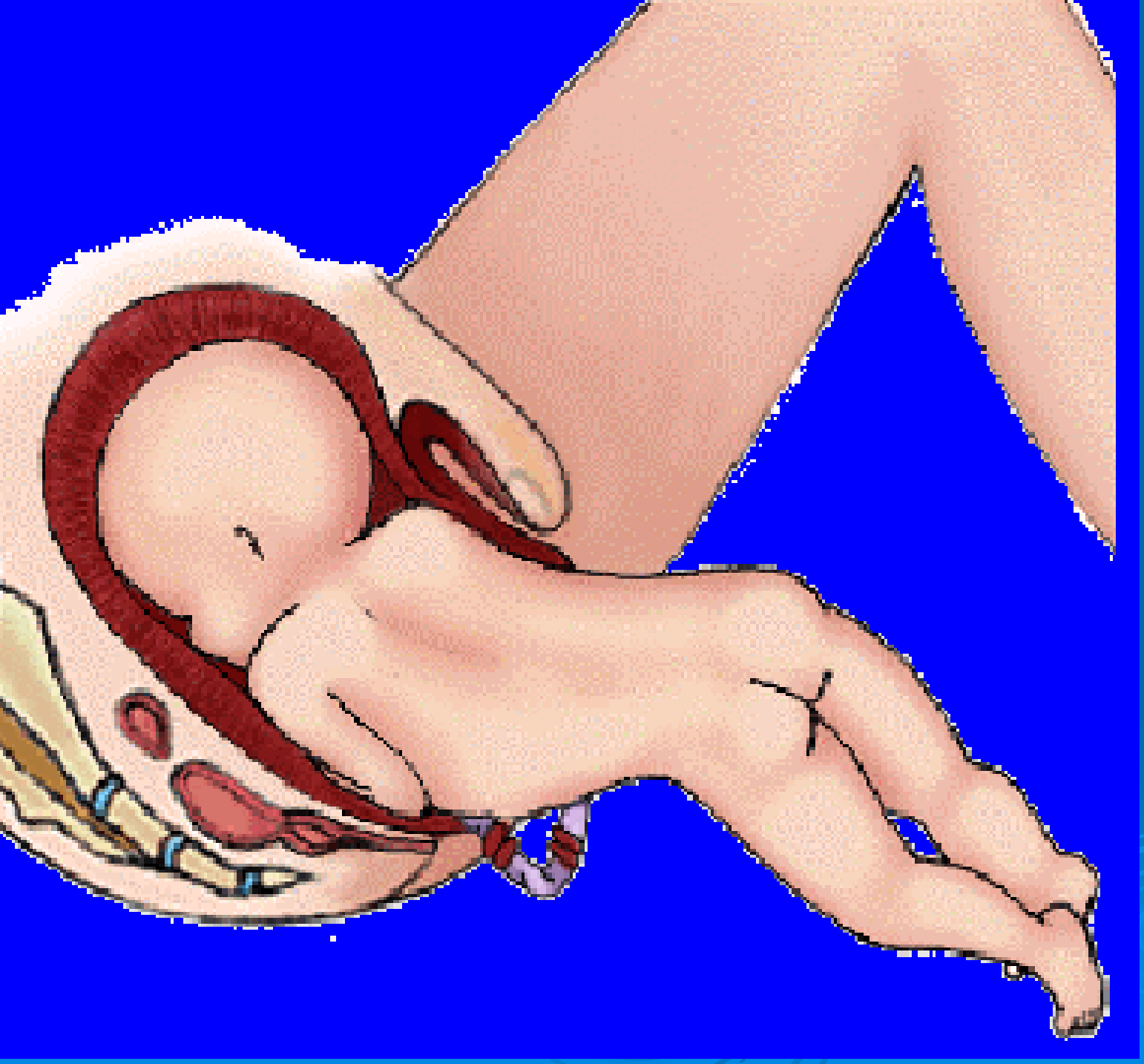


Scenario # 6

Dispatched to 37 year female (non-English speaking), unable to ascertain any medical history due to language barrier.

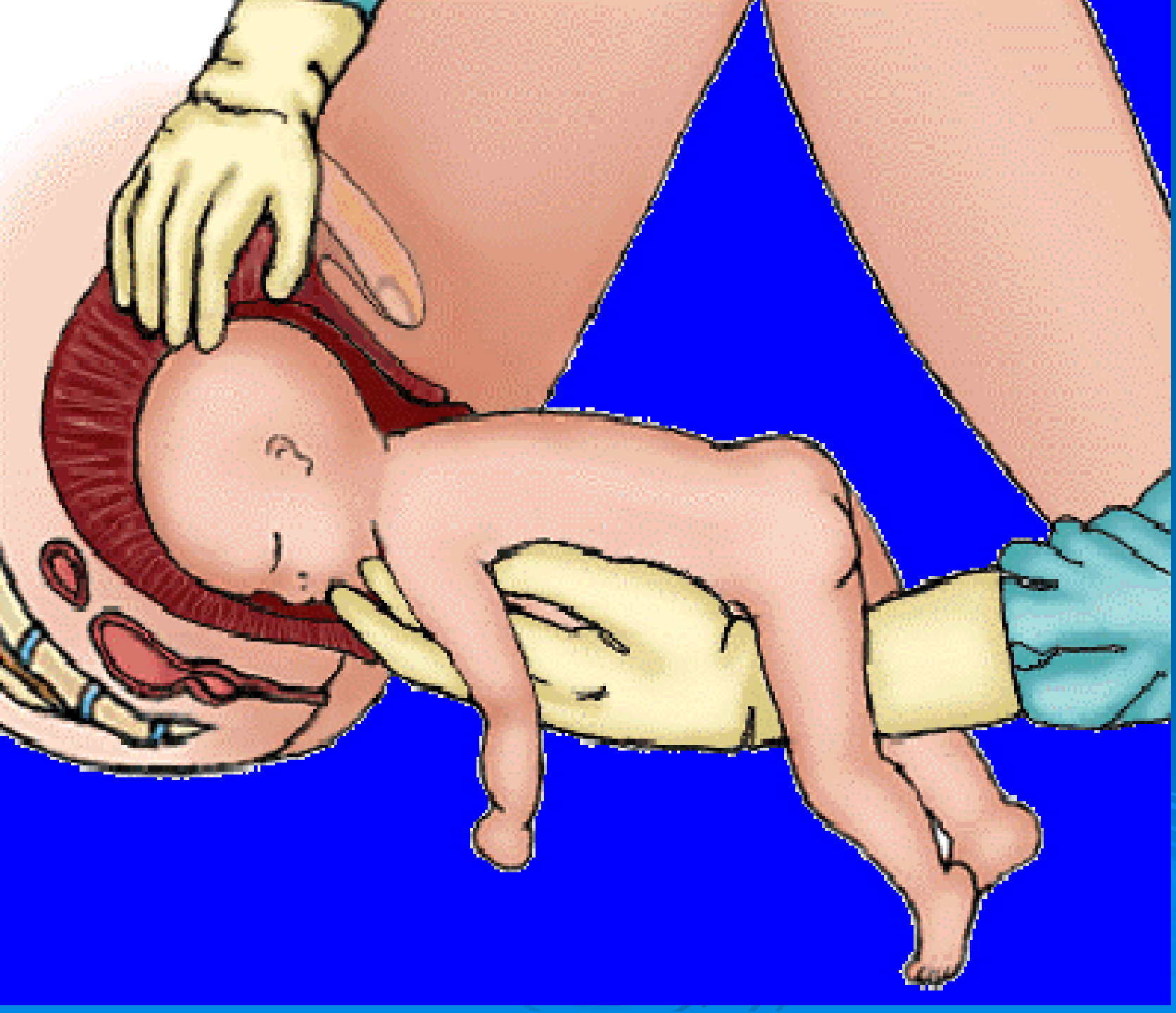
One of the many “midwives” in attendance states that mother has been in labor for a “very long time”.

You walk into the house and find the mother (in complete state of exhaustion) leaning over the couch:



Patient Care

- Place patient in knee-chest position or with buttocks on edge of bed, legs flexed as much as possible.
- Instruct mother to pant with each contraction to prevent bearing down.
- Allow infant to be delivered with contractions, apply pressure at pubis as head passes, support baby.
- Moist dressing to cord to prevent umbilical artery spasm
- Gloved hand to prevent delivery if unable to deliver in field, relieve pressure from cord!
- Oxygen therapy.
- Rapid transport.

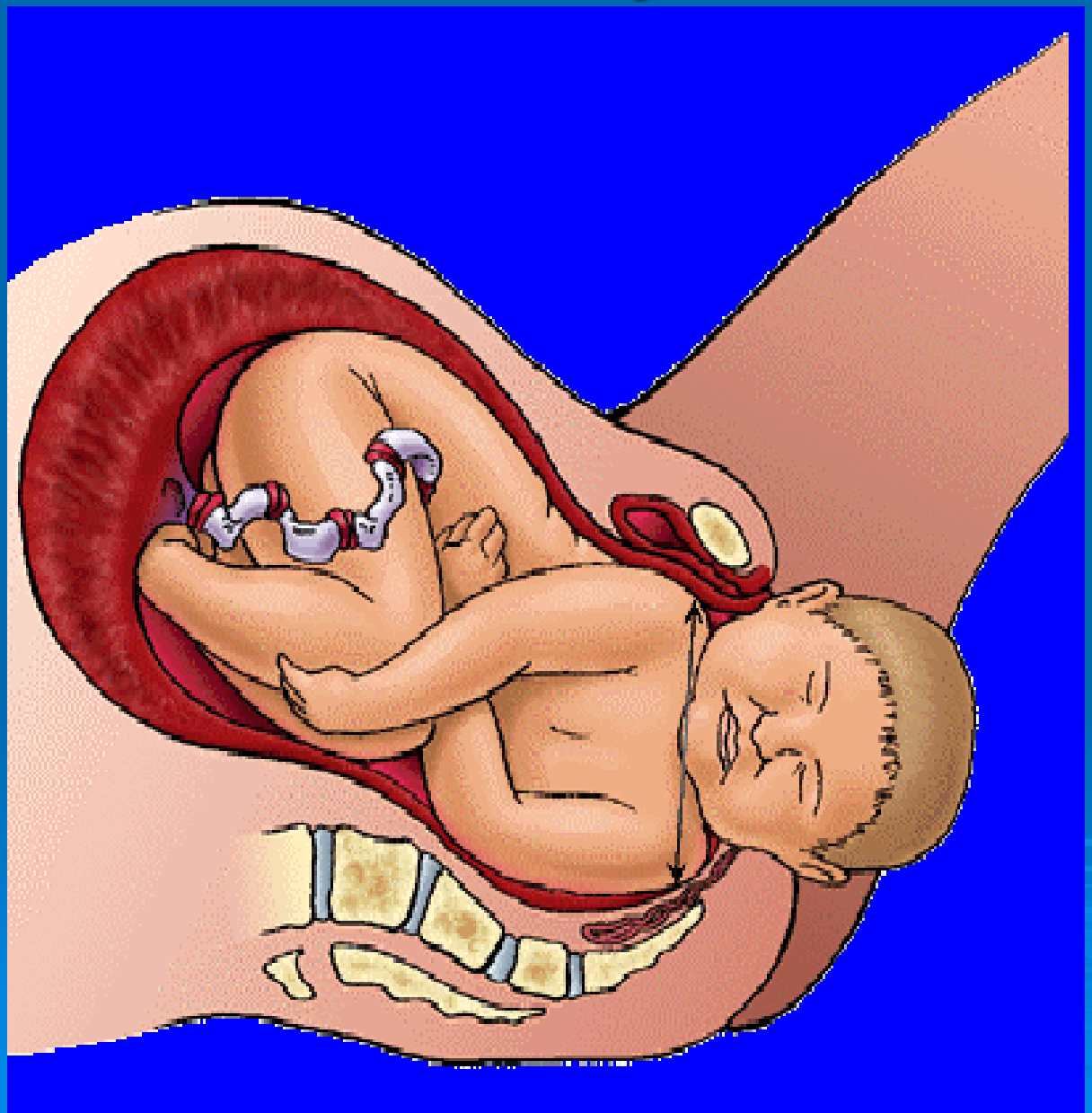


Shoulder Dystocia

Occurs when the infant's shoulders are larger than it's head, most common with diabetic and obese mothers.

Labor progresses normally with routine head delivery which will retract back into the perineum because shoulders are trapped between the pubis and the sacrum.

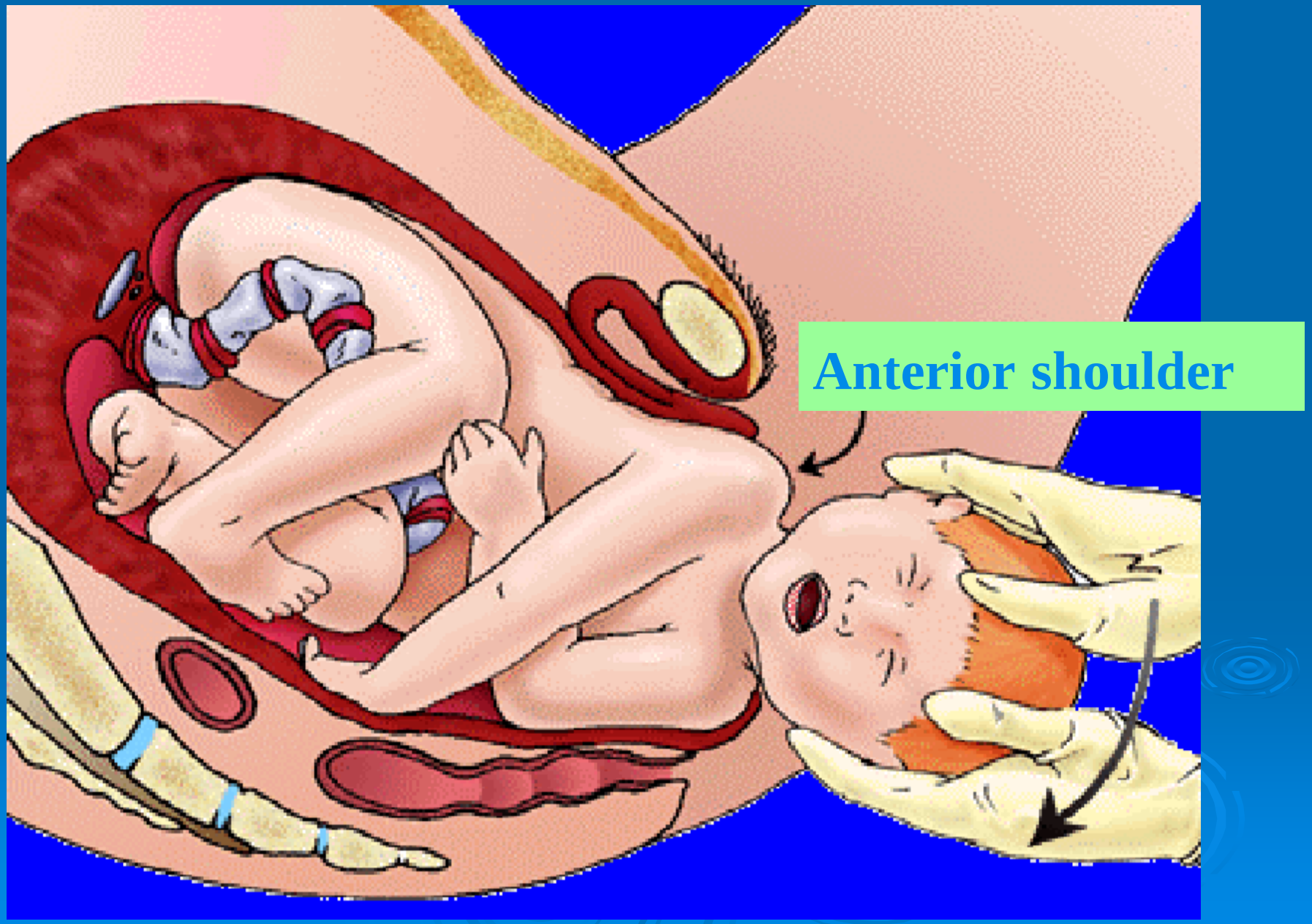
Shoulder Dystocia

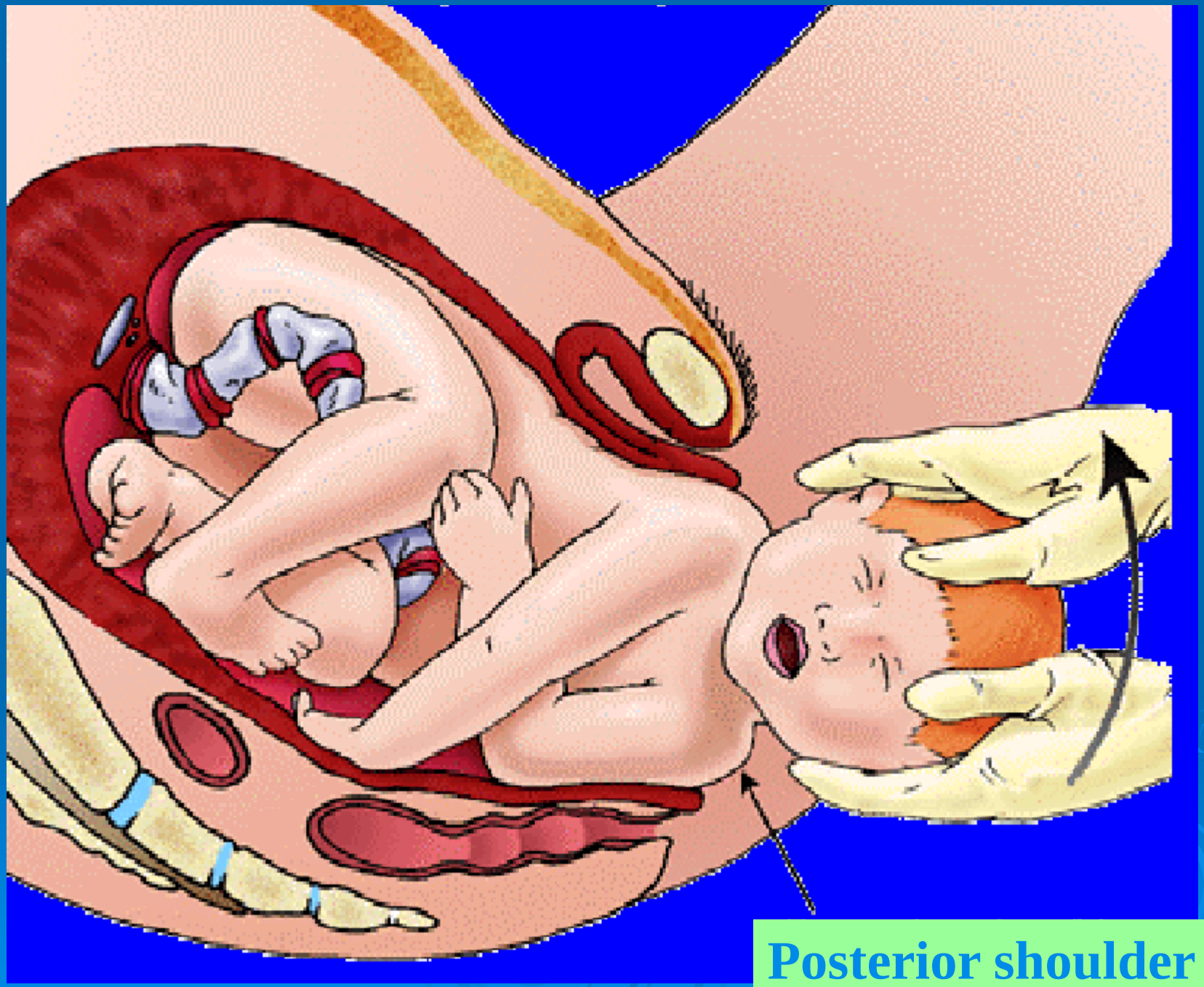


Scenario # 7

Dispatched to a 29 year old, obese female, full term pregnancy delivering at home. Patient without consistent prenatal care and three previous births.

In labor for over three hours with father assisting delivery. 911 was called when father realized baby was “stuck”.


Anterior shoulder


Posterior shoulder

Patient Care

- Do not pull on baby's head!
- Oxygen therapy.
- Have mother flex thighs to assist in delivery.
- Apply firm pressure with your open hand above symphysis pubis.
- Oxygen and transport.

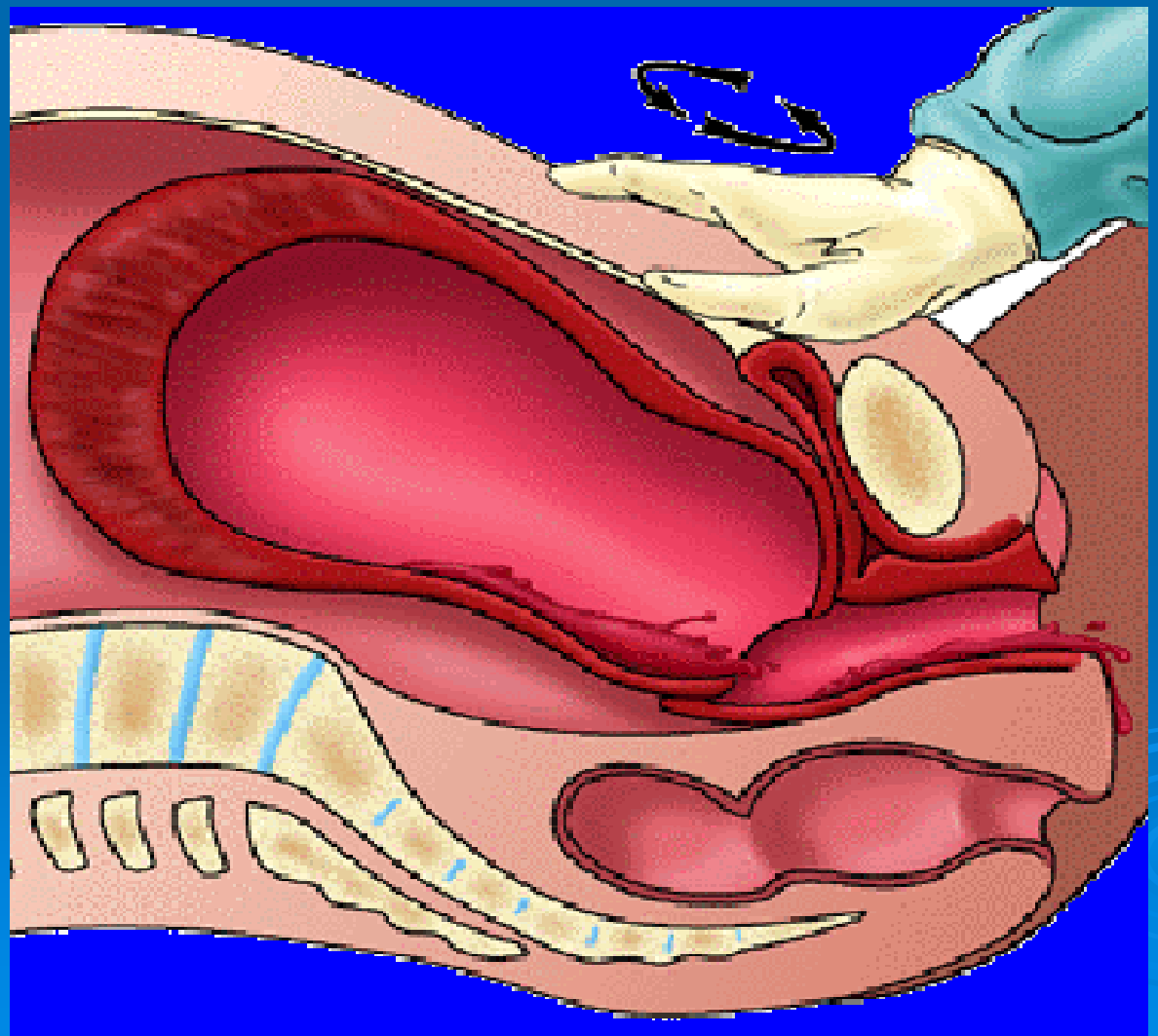
Shoulder Presentation

Fetal shoulder lies over the pelvic inlet

Spontaneous delivery is not possible, delivery of fetus through cesarean only.

- Position of comfort for mother.
- Oxygen therapy.
- Rapid transport.

Postpartum Hemorrhage



Patient Care

- Begin fundal massage/nursing of infant.
- Position of comfort for mother.
- Oxygen therapy.
- Do not force delivery of placenta.
- Do not pack vagina with dressings.
- Maintain patient warmth.
- Transport.

Uterine Inversion

A rare event in which the uterus turns inside out after birth. Note hypovolemic shock may develop quickly.

- Do not attempt to manually replace the uterus.
- ABCs, position of comfort, oxygen therapy
- Transport

Fetal Membrane Disorders

Premature rupture of membranes

Amniotic fluid embolism

Meconium staining

Neonatal Resuscitation Basics

Open the airway, position, suction

Prevent heat loss

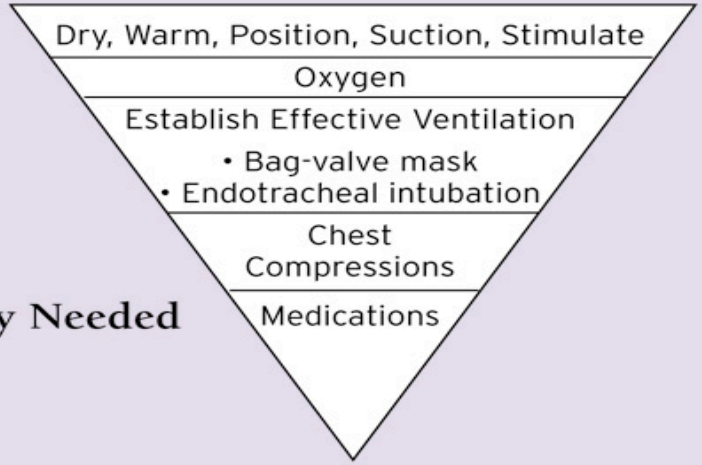
Provide tactile stimulation

Evaluate the infant with the Apgar score

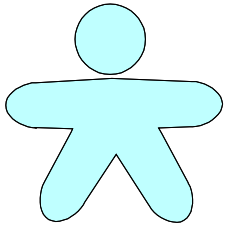
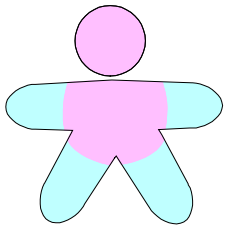
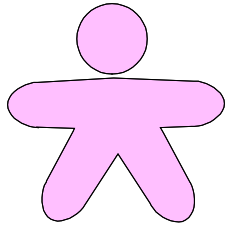
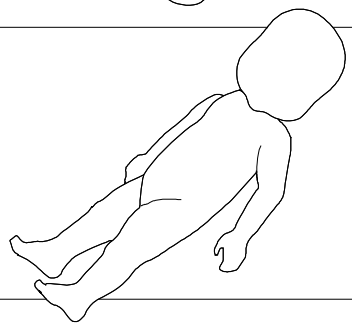
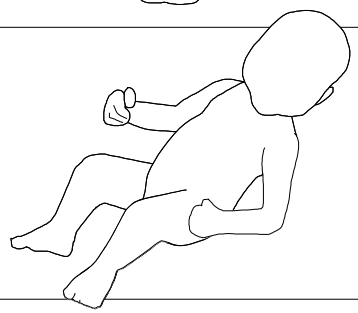
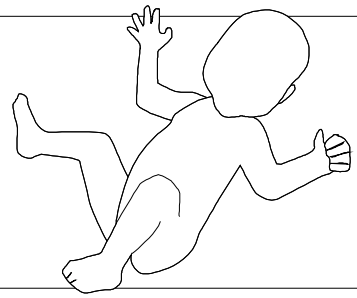
The majority of newborns will respond very well to these simple procedures

Neonatal Resuscitation

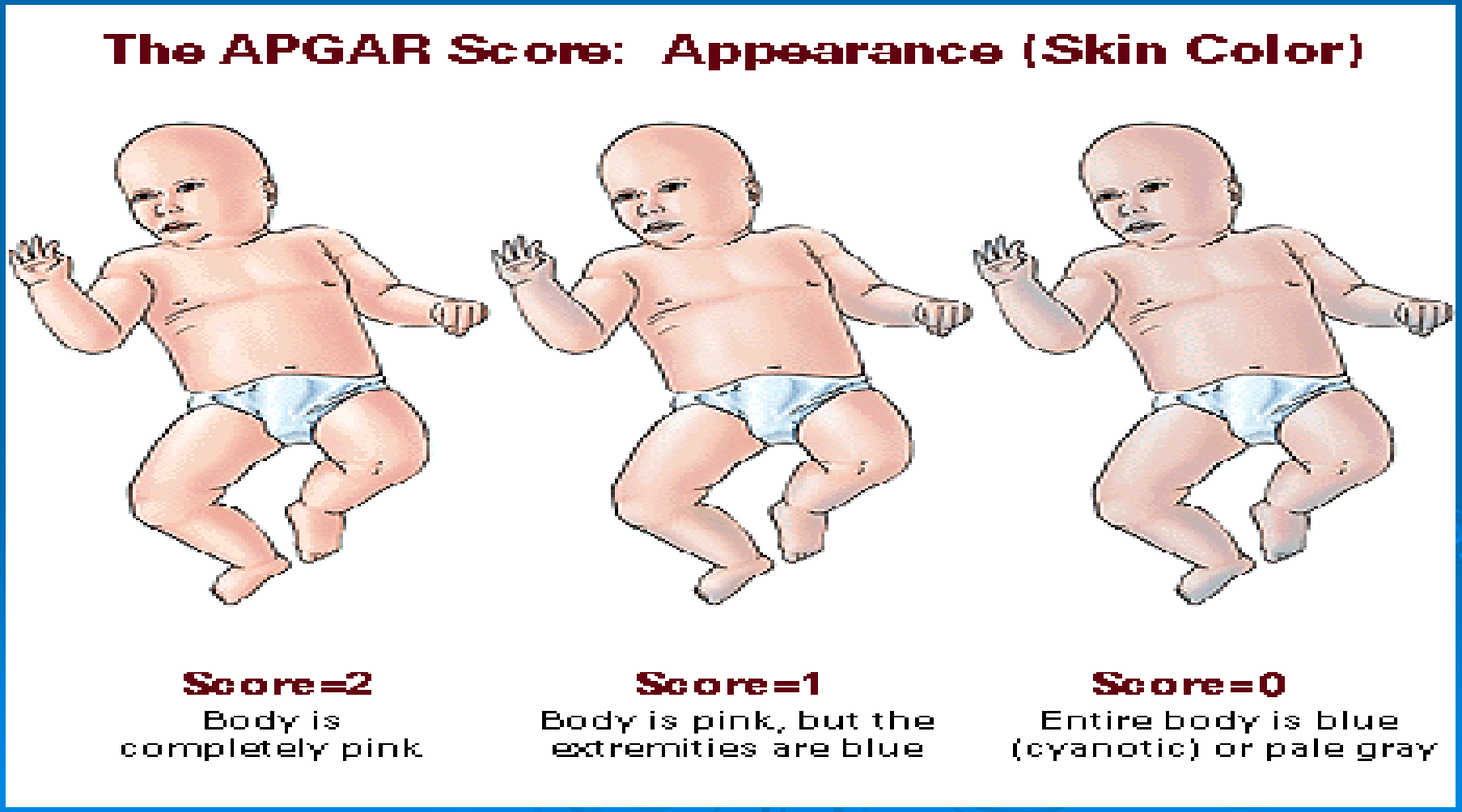
Assess and Support: Temperature
(warm and dry)
Airway
(position and suction)
Breathing
(stimulate to cry)
Circulation
(heart rate and color)



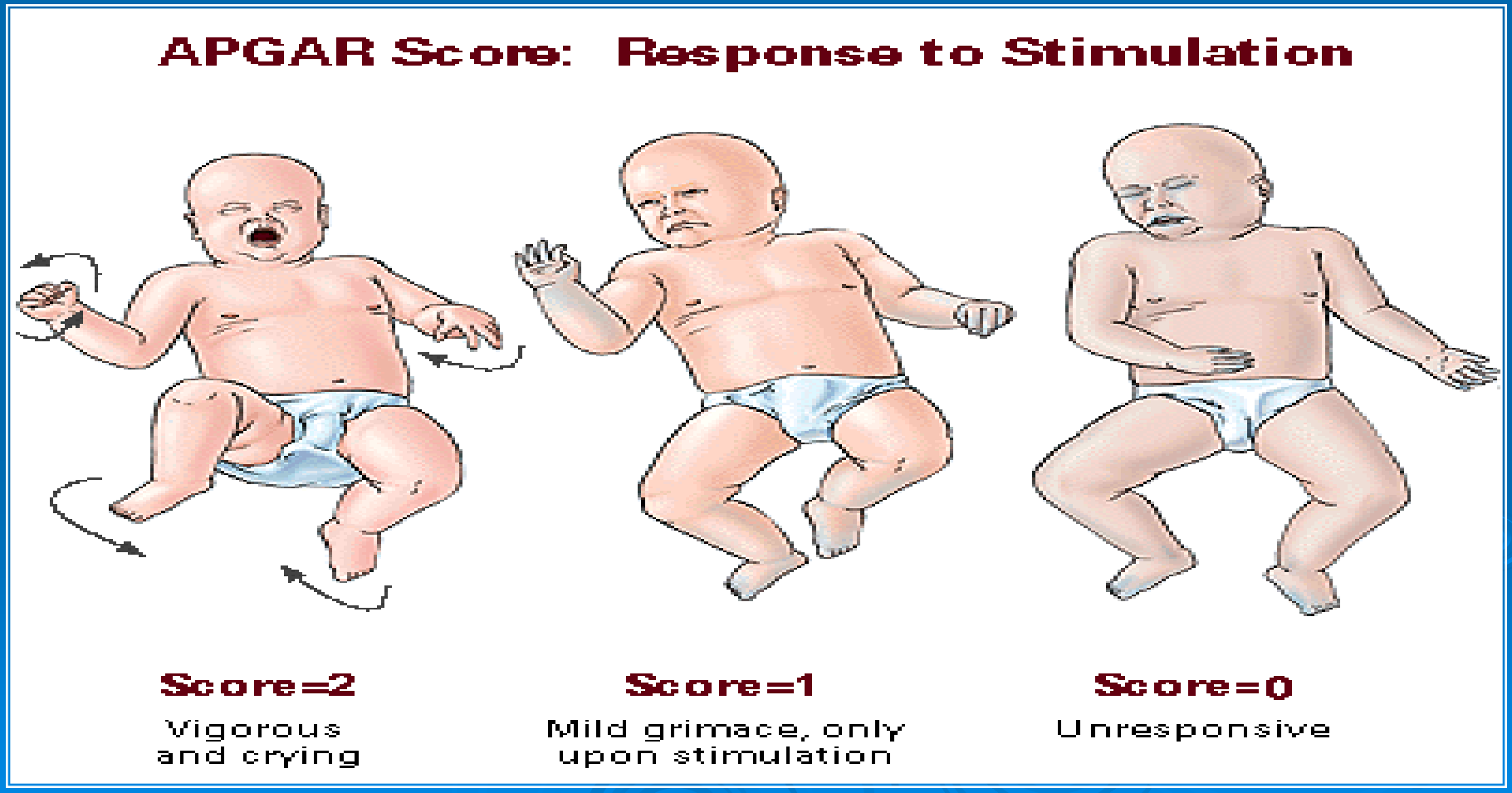
APGAR Scoring

	Score 0	Score 1	Score 2
Appearance			
Pulse	No pulse	<100/min.	>100/min.
Grimace			
Activity			
Respirations	No respirations	Weak, slow	Strong cry

Appearance


The APGAR Score: Appearance (Skin Color)
Score=2
Body is completely pink
Score=1
Body is pink, but the extremities are blue
Score=0
Entire body is blue (cyanotic) or pale gray

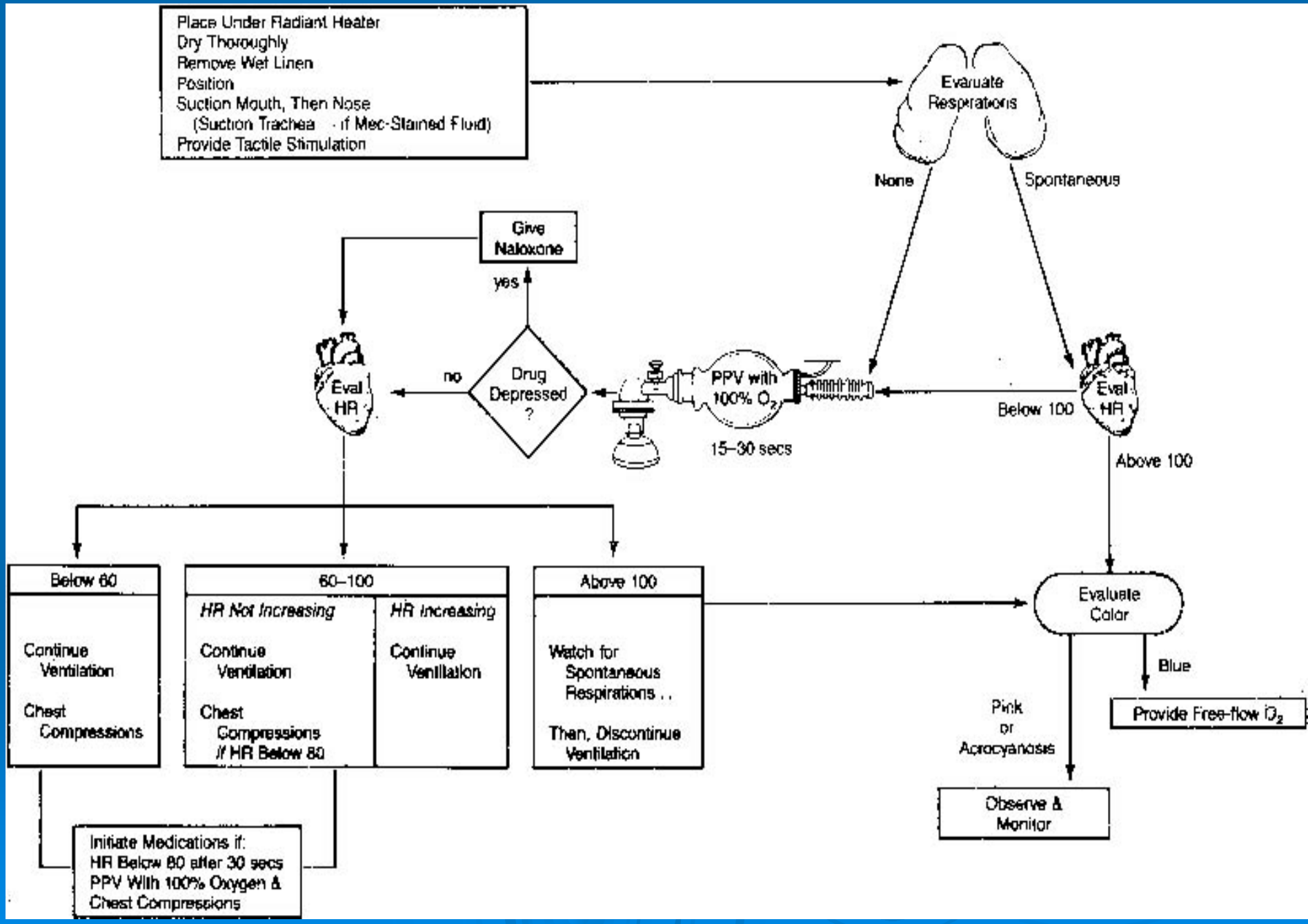
Grimace and Activity



Scenario # 8

Dispatched to a 40 year old mother imminent childbirth. Patient is full term with three previous “very quick” deliveries.

Enroute dispatch informs you that baby is crowning, you walk in and find mother has delivered the baby.


Place Under Radiant Heater
Dry Thoroughly
Remove Wet Linen
Position
Suction Mouth, Then Nose
(Suction Trachea if Mec-Stained Fluid)
Provide Tactile Stimulation
Evaluate Respirations
None
Spontaneous
Give Naloxone
yes
Eval HR
no
Drug Depressed ?
PPV with 100% O2
15–30 secs
Below 100
Eval HR
Above 100
Below 60
Continue Ventilation
Chest Compressions
60–100
HR Not Increasing
Continue Ventilation
Chest Compressions if HR Below 80
HR Increasing
Continue Ventilation
Above 100
Watch for Spontaneous Respirations . .
Then, Discontinue Ventilation
Evaluate Color
Blue
Provide Free-flow O2
Pink or Acrocyanosis
Observe & Monitor
Initiate Medications if:
HR Below 80 after 30 secs
PPV With 100% Oxygen &
Chest Compressions

Neonatal Patient Care

- Prevent heat loss, keep baby warm.
- Open the airway, side or back position, suction airway with bulb syringe (as needed).
- Provide tactile stimulation.
- Evaluate and re-evaluate the infant's respirations, heart rate, and color.
- If necessary, provide O2 via BVM

Questions?

Contact Info:

Doreen McAndrews, NREMT-P
VA OEMS Education Coordinator
AHA Instructor (BLS, PALS, ACLS)
dmcandrews@nnva.gov
doreen.mcandrews@jamescitycountyva.gov
757-713-0182

Extra Scenarios

- Possible Miscarriage
- Abdominal Pain
- VBFD Station 3
- Anna
- Towel
- Pre-mature