A couple has a child with beta-thalassemia. You counsel them that their risk of having an affected child in a subsequent pregnancy is:

a. 2%
b. 10%
c. 25%
d. 50%
e. 60%

A 37 year old G2P1 sees you for prenatal care at 9 weeks. Autism and ADHD were recently diagnosed in her 3 year-old son. The most appropriate gene to evaluate is

a. CFTR
b. DMD
c. FMR1
d. GBA
e. HEXA
Match the combination of nuchal translucency and 1st trimester analyte (158–161) with most likely corresponding karyotype (A–D).

- Nuchal translucency = 3.2 mm, β-hCG = 2.3 multiples of the median (MoM), pregnancy-associated plasma protein A (PAPP-A) = 0.5 MoM

  • A - 45,X

- Nuchal translucency = 6.4 mm, β-hCG = 1.2 MoM, PAPP-A = 0.8 MoM

  • B - 46,XX

- Nuchal translucency = 1.5 mm, β-hCG = 1.2 MoM, PAPP-A = 1.4 MoM

  • C - 47,XX+18

- Nuchal translucency = 2.8 mm, β-hCG = 0.2 MoM, PAPP-A = 0.1 MoM

  • D - 47,XY+21

Choose most likely clinical scenario involving medication exposure during pregnancy (A–E).

- A 27-year-old patient with epilepsy required multiple anticonvulsant medications, including valproic acid, because of poor seizure control during pregnancy.

- A 44-year-old patient with hypertension initially presented for prenatal care at 24 weeks of gestation and is taking an angiotensin-converting-enzyme (ACE) inhibitor.

- A 34-year-old woman is taking lithium for her bipolar illness.

- A 21-year-old woman sought therapy for severe cystic acne and experienced unrecognized displacement of her intrauterine device (IUD) while taking isotretinoin.

A 23-year-old patient with classic phenylketonuria (PKU) presents for prepregnancy consultation. To reduce the risks of fetal intellectual disability and birth defects, the most important recommendation for her prepregnancy diet is that it be

- A low in fat
- B high in carbohydrates
- C low in protein
- D high in folate

A - Ebstein’s anomaly
B - Hydrocephaly and microtia
C - Neonatal renal failure
D - Neural tube defect
E - Phocomelia
A 35-year-old woman, gravida 2, para 1, at 18 weeks of gestation presents for a prenatal appointment. She had a normal previous pregnancy with delivery of a healthy baby at term. She has an unremarkable family history for genetic disorders. She requested a cell-free DNA test that returned positive for Turner syndrome (45,X). The most appropriate next test to confirm the diagnosis of Turner syndrome is (an)

- A amniocentesis for karyotype analysis
- B chorionic villus sampling
- C fetal anatomic survey
- D quadruple marker screen
- E repeat cell-free DNA test

35-year-old woman undergoes 1st trimester screening for aneuploidy. Nuchal translucency measures 3.1 mm. The patient elects to have chorionic villus sampling, which reveals a normal karyotype and microarray. If a structural abnormality were detected, it would most likely be (a)

- A cardiac defect
- B diaphragmatic hernia
- C hydrocephalus
- D pulmonary hypoplasia
- E stenosis of the small bowel

The test most likely to determine the etiology of fetal death is

- a. Autopsy
- b. Karyotype
- c. Placental pathology
- d. Thrombophilia evaluation
- e. Viral serology
- Cocaine use during pregnancy is associated with what complication?
  A. Neonatal hyperbilirubinemia
  B. Placenta Previa
  C. Preeclampsia
  D. Cervical Insufficiency
  E. Spontaneous Abortion

Match the following drugs with their known toxicity:

- Angiotensin-converting enzyme inhibitors
- Phenytoin
- Lithium
- Isotretinoin

a. abnormal facies/hypoplastic nails
b. Ebstein’s anomaly
c. cardiac/thymic/cleft/anotia,
d. phocomelia
e. renal tubular dysgenesis

Match each second-trimester ultrasonographic result with the most likely abnormal fetal karyotype (A–E).

- Cerebral ventriculomegaly and echogenic bowel
- Cystic hygroma and hydrops fetalis
- Holoprosencephaly and a midline facial cleft

A. 45,X
B. 47,XXY
C. 47,XX,+21
D. 47,XY,+18
E. 47,XX,+13
A 27-year-old patient, gravida 1, presents to your office for a prenatal appointment at 13 weeks of gestation. In reviewing information about nutrition and food safety, she says she has trouble finding food that she enjoys eating during pregnancy. You request a 48-hour review of her diet. Among the foods she has eaten, the most worrisome for causing a serious complication in her pregnancy is

A. banana strawberry smoothies
B. canned light tuna
C. grilled bologna sandwiches
D. *queso fresco* nachos
E. shrimp tempura rolls

Diagnostic criteria for fetal alcohol syndrome include growth restriction, facial anomalies and

A. Central nervous system dysfunction
B. Cerebral palsy
C. Genitourinary malformation
D. Cardiac abnormalities
E. Withdrawal symptoms

Finding of a short fetal humerus on ultrasonography is most closely associated with a risk of which of the following aneuploidies?

A. Trisomy 13
B. Trisomy 18
C. Trisomy 21
D. 47 XXY
E. 47 XYY
A neonate was born with maculopapular rash that later progressed to desquamation, profuse nasal discharge and osteochondritis. What is the most likely infectious etiology?

A. Cytomegalovirus  
B. Rubella  
C. Syphilis  
D. Toxoplasmosis  
E. Varicella Zoster

Match the obstetric clinical presentation to the minimal level of care (A–E) most appropriate for each condition.

- Placenta previa without prior uterine surgery  
- Cardiac surgical care required  
- Term singleton in cephalic presentation  
- Preeclampsia without severe features at term  
- Placenta accreta

A. Birth center  
B. I  
C. II  
D. III  
E. IV

A 33yo primiparous woman gives birth at term without complications. An assessment of the newborn shows a cleft lip and palate, microphthalmia and rocker-bottom feet. Her karyotype indicates trisomy 13. The most likely etiology of this abnormality is:

A. Dispermic fertilization  
B. Mitotic nondisjunction  
C. Maternal meiotic nondisjunction  
D. Paternal meiotic nondisjunction  
E. Robertsonian translocation
A woman, gravida 2, para 1, who recently emigrated from Africa comes to see you at 27 weeks. An ultrasound shows a fetus with marked subcutaneous edema, pleural effusions and compromised cardiac function. Otherwise the fetus appears normal. The test most likely to confirm the diagnosis is an assay for

A. Anti-E antibodies
B. Antimalarial antibodies
C. HIV antibodies
D. Rubella antibodies
E. Varicella antibodies

A 23 yo, gravida 3, para 2 gave birth to a liveborn female neonate at 39 weeks of gestation via spontaneous vaginal delivery. The patient had reported very limited fetal movement throughout her pregnancy, and the neonate was noted to be hypotonic at birth. The infant's hypotonia progressively worsened during her first year of life, and she died at 13 months of age. The most likely cause of death was a disorder caused by a defect in which gene?

A. BASC on chromosome 17
B. CFTR on chromosome 7
C. FMR1 on chromosome X
D. SMN1 on chromosome 5
E. TARDBP on chromosome 1

A 23 yo, gravida 1, para 0, at 18 weeks of gestation comes in for a routine prenatal visit and mentions that there has been a recent parvovirus outbreak at her job. Which of the following test results indicates she recently has been exposed to Parvovirus.

A. (-) IgM, (-) IgG
B. (-) IgM, (+) IgG
C. (+) IgM, (-) IgG
D. (+) IgG, (+) IgG
A woman with newly diagnosed epilepsy is found to be 4 weeks pregnant. Which of the following approaches to treatment is the best way to minimize fetal and maternal risk?

A. Immediate monotherapy
B. Immediate polytherapy
C. No therapy until 2nd trimester
D. No therapy until after delivery

The leading preventable cause of developmental disabilities in the United States is fetal exposure to

A. Alcohol
B. Isotretinoin
C. Nicotine
D. Phenytoin
E. Warfarin

Shortly after completing a course of adjuvant radiation therapy for a localized breast cancer, a 37yo presents for missed menstrual period. A pregnancy test is positive. Based on the date of her LMP, you estimate the embryo was exposed to the scatter from the radiation during the first 2-3 weeks of gestation. If the embryo survives, the most likely neonatal outcome will be

A. No adverse effects
B. Functional disabilities but no structural deformities
C. Growth restriction and microcephaly
D. Minor limb deformities
E. Major organ abnormalities
Match the following structural defect with aneuploidy risk and most common aneuploidy.

<table>
<thead>
<tr>
<th>Structural defect</th>
<th>Aneuploidy risk</th>
<th>Most common aneuploidy</th>
</tr>
</thead>
<tbody>
<tr>
<td>14. complete AV canal</td>
<td>a. minimal; -----</td>
<td>a. minimal; -----</td>
</tr>
<tr>
<td>15. Omphalocele</td>
<td>b. 60-75%; 45X</td>
<td>b. 60-75%; 45X</td>
</tr>
<tr>
<td>17. Cystic hygroma</td>
<td>d. 30-40%; 13, 18</td>
<td></td>
</tr>
</tbody>
</table>

In the treatment of headaches, which of the following medications is contraindicated during pregnancy?

A. Sumatriptan succinate
B. Ergotamine tartrate
C. Meperidine hydrochloride
D. Promethazine hydrochloride
E. Prochlorperazine

37 yo presents to the ED with heavy vaginal bleeding and subsequently gives birth to a 15 week sized fetus. The products of conception are sent for genetic analysis. What is the most likely finding?

A. Autosomal trisomy
B. Euploidy
C. Monosomy X
D. Sex chromosomal polysomy
E. Triploidy
Which of the following second trimester maternal serum screening test results indicates an increased risk for trisomy 21?

<table>
<thead>
<tr>
<th>Beta-HCG</th>
<th>AFP</th>
<th>Estriol</th>
<th>Inhibin</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>B</td>
<td>0</td>
<td>0</td>
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<td>C</td>
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<td>D</td>
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<td>0</td>
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</tr>
<tr>
<td>E</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

When investigating the cause of an intrauterine fetal death, which of the following tests is most likely to provide a diagnosis?

A. Fetal autopsy
B. Fetal karyotype
C. Kleihauer-Betke test
D. Maternal drug screen
E. Maternal viral titers

25yo G1P0 presents at 9 weeks for her first prenatal visit. She is concerned about the amount of mercury when eating fish. Which of the following has the highest mercury level?

A. Swordfish
B. Salmon
C. Tile fish
D. Sardines
E. Tuna
In addition to IUGR, which of the following ultrasonographic findings is most characteristic of fetal alcohol spectrum disorder?

A. Craniosynostosis
B. Hydrocephalus
C. Hypotelorism
D. Microcephaly
E. Porencephalic cysts

FAS: (1) growth restriction, (2) facial abnormalities, (3) CNS dysfunction

---

A 35-year-old woman undergoes fetal ultrasonography for aneuploidy screening at 18 weeks of gestation. On ultrasonography, the fetus is found to have echogenic bowel, nuchal fold thickening, pyelectasis, shortened humerus, and single umbilical artery. Of these findings, the one most strongly associated with Down syndrome is

- echogenic bowel
- nuchal fold thickening
- pyelectasis
- shortened humerus
- single umbilical artery

---

A 30 yo pregnant woman presents at 18 weeks with a newly diagnosed pregnancy. She has been taking danazol for a history of endometriosis. You counsel her that her fetus is at increased risk for

A. Ambiguous genitalia
B. Cardiac defects
C. Craniofacial defects
D. Fetal demise
E. Limb defects

**Ambiguous genitalia**
- Clitoromegaly, fused labia, urogenital sinus malformations
Match each classic ultrasound finding with the most likely congenital infection:

- Intraabdominal calcifications and symmetric fetal growth restriction
- Placentomegaly
- Intracranial calcifications and microcephaly
- Ascites
- Limb hypoplasia

(A) Cytomegalovirus (CMV)
(B) Parvovirus B19
(C) Syphilis
(D) Toxoplasmosis
(E) Varicella

A woman at 7 weeks relates a family history of autism in her male cousins and of mental retardation in her maternal great aunt. The most appropriate approach to genetic testing is:

A. Paternal screening
B. Maternal screening for serum AFP
C. Maternal screening for fragile X syndrome
D. Chorionic villus sampling at 10 weeks
E. Amniocentesis at 16 weeks

A woman at term gives birth to a neonate who is noted to have deafness, cataracts, microcephaly and a patent ductus arteriosus. What is the most likely infectious etiology?

A. Cytomegalovirus
B. Rubella
C. Syphilis
D. Toxoplasmosis
E. Varicella

- Rubella
  - Cataracts, microphthalmia, glaucoma, PDA, microcephaly
- CMV
  - Petechia, hepatosplenomegaly, chorioretinitis, microcephaly, deaf
- Toxo
  - Hepatosplenomegaly, icterus, anemia, chorioretinitis, calcifications, hydrocephalus
- Varicella
  - Cutaneous scars, limb abnormalities, muscle atrophy, chorioretinitis, cataracts, cortical atrophy
A 37-year-old woman presents for an annual examination. She indicates she wants to become pregnant soon. She tells you her husband was recently in Brazil. Although he did not have any illness during his time in Brazil, she asks whether he should be tested for the Zika virus.

• A 27-year-old woman, gravida 1, who visited relatives in Puerto Rico 3 weeks ago presents for a prenatal visit at 11 weeks of gestation. She reports no history of any symptoms during or after her visit.

• A 29-year-old woman, gravida 2, para 1, who resides in Puerto Rico, presents at 24 weeks of pregnancy for a prenatal visit. Zika virus NATs of serum and urine were ordered at her first prenatal visit 8 weeks ago and both were negative.

• A 23-year-old woman, gravida 0, presents for an annual examination. She indicates she was in Puerto Rico for a family funeral 10 days ago. She has been asymptomatic but was just informed that one of her family members has recently been diagnosed with Zika virus infection.

A woman has an ultrasound confirming an 8 wk IUP. She takes sertraline for a 10 yr history of major depression that includes hospitalization and a suicide attempt. She says she has been feeling emotionally well for the past 4 months. She has taken bupropion previously with adequate response, but she was bothered by dry mouth. She is concerned about the safety of her fetus and asks you whether she should stop taking her medication. The most appropriate response is to recommend:

A. Increasing sertraline dose
B. Continuing sertraline at the current dose
C. Switching from sertraline to bupropion
D. Tapering the sertraline dose over the next few weeks
E. Discontinuing sertraline immediately
25 yo primigravid woman has an anatomic ultrasound evaluation at 20 weeks and significant fetal hydrops is noted. The woman is Rh positive and has negative serum antibody screen. No other fetal anatomic abnormalities are seen, and the amniotic fluid index is normal. Middle cerebral artery Doppler peak systolic velocity is elevated. The most likely diagnosis is

A. Bladder obstruction
B. Gaucher disease
C. Parvovirus B19 infection
D. Placental abruption
E. Turner syndrome

41yo with chronic hypertension an no prenatal care gives birth at 33 weeks. The pediatrician reports that the newborn has growth restriction, renal dysgenesis and a severely underdeveloped calvarial bone. These findings are best explained by fetal exposure to which antihypertensive medication?

A. Captopril
B. Furosemide
C. Hydrochlorothiazide
D. Propranolol hydrochloride
E. Verapamil

During her prenatal appointment, a woman tells you that she has a brother with autism and a cousin with mental retardation. She describes several members of her family as being “borderline retarded” and she has been told that there may be an inherited disorder. She requests information on her risk of being a carrier of a defective gene. To make the diagnosis, the best method of evaluation is

A. Ultrasonographic fetal survey
B. Maternal EBV based molecular analysis
C. Maternal serum screening for biochemical markers
D. Maternal chromosome analysis
E. CVS for fetal karyotype
The majority of aneuploidy cases results from nondisjunction errors that occur during

A. Mitosis
B. Maternal meiosis I
C. Maternal Meiosis II
D. Paternal meiosis I
E. Paternal meiosis II

Yesterday, a woman at 22 weeks called and told you that she was exposed to a child with chickenpox in her third grade class earlier in the day. Her varicella-zoster antibody test result today in negative. The most appropriate management is

A. Reassurance
B. Oral acyclovir if a rash develops
C. Oral acyclovir immediately
D. Varicella zoster immunoglobulin if rash develops
E. Varicella zoster immunoglobulin immediately

24 yo gravida 3, para 1 presents for preconception counseling. Her obstetric history is significant for the birth of a male infant with open spina bifida. You advise her to begin folic acid supplementation at a daily dose of

A. 0.4 mg
B. 0.8 mg
C. 1 mg
D. 2 mg
E. 4 mg
33 yo presents for her 1st prenatal visit at 8wks and informs you that she completed radioactive iodine 131 treatment for thyroid carcinoma 3 months ago. You counsel her that she is at increased risk of

A. Fetal anomaly  
B. Fetal growth restriction  
C. Fetal thyroid gland destruction  
D. Maternal thyrotoxicosis  
E. Spontaneous abortion

A Chinese graduate student has a pregnancy complicated by severe preeclampsia and IUFD of a hydropic fetus. The type of abnormal hemoglobin that was most likely responsible for the fetal demise is hemoglobin

A. Bart's  
B. Constant Spring  
C. E  
D. F  
E. H

A psychiatrist consults you about the safety of using electroconvulsive therapy (ECT) for a pregnant patient with severe depression. You reply that the use of ECT in pregnancy is

A. Considered safe in any trimester  
B. Considered safe only in the 2nd and 3rd trimester  
C. Associated with an increased risk of placental abruption  
D. Associated with increased risk of preterm labor  
E. Absolutely contraindicated
A 25 yo presents for her first prenatal visit at 8wks. Her history is significant for recurrent episodes of major depression since age 18 and one suicide attempt. Her mood has been stable for the past 12 months on sertraline hydrochloride. In counseling this woman about the risks and benefits of antidepressant therapy in pregnancy, the most important consideration is the risk of

A. Fetal congenital heart defects
B. Fetal growth impairment
C. Fetal midline facial defects
D. Maternal relapse
E. Neonatal withdrawal syndrome

A 36-year-old woman, gravida 3, para 2, undergoes cell-free DNA screening at 11 weeks of gestation. The results are consistent with trisomy 21. The most appropriate next test is

- (A) chorionic villus sampling
- (B) first-trimester serum analyte screening
- (C) repeat cell-free DNA screening
- (D) ultrasonography of ductus venosus
- (E) parental karyotyping

A 29-year-old woman, gravida 2, para 1, at 28 weeks of gestation presents with an intrauterine fetal demise. She works as an elementary school teacher and reports that several of her younger students have been absent from school because of a viral illness. Her prenatal course had been uncomplicated, with normal routine prenatal laboratory studies and 20-week ultrasonography. Her past medical and family histories are noncontributory. Drug screening performed earlier in pregnancy was negative. Although a complete assessment of the fetus and placenta, including autopsy, are planned after the delivery, the most informative laboratory study is likely to be

- A aneuploidy screen
- B toxicology screen
- C hemoglobin A1c
- D infectious disease serology
- E inherited thrombophilia evaluation
In the maternal evaluation for the etiology of intrauterine fetal demise, which test or assessment is best performed prior to delivery?

A. Factor V Leiden mutation
B. Kleihauer Betke
C. Protein S activity level
D. Prothrombin gene mutation
E. Thyroid stimulating hormone level

A postpartum lactating mother requires imaging studies with radioactive gallium Ga 67 citrate. You advise her that she may resume breastfeeding after

A. The imaging study is completed
B. 24 hours
C. 1 week
D. The milk-to-plasma ratio becomes less than 1
E. Radioactivity measurements of the breast milk return to background level

You deliver a healthy infant with ambiguous genitalia. Records from amniocentesis indicate a karyotype of 46 XY. In response to the mother’s urgent question about the newborn’s gender, you

A. Assign based on karyotype
B. Assign based on phallus size
C. Assign based on urethral position
D. Defer to the pediatrician in the delivery
E. Defer until further evaluation
Conjoined twins result from the division of the fertilized ovum during the formation of the

- A. Zygote
- B. Blastomere
- C. Morula
- D. Blastocyst
- E. Embryonic disc

According to the Current Procedural Terminology coding guidelines, which of the following services is included in the global obstetric care package?

- A. Ultrasonography to establish gestational age
- B. A walk in office visit at 10 weeks’ to evaluate for urinary tract infection
- C. More than 13 total office visits to monitor gestational diabetes
- D. An office visit at 1 week postpartum to evaluate wound infection
- E. An office visit at 6 weeks postpartum for routine follow up

During an ultrasound examination at 20 weeks a woman receives a diagnosis of fetal demise. Postmortem exam of the fetus confirms caudal regression syndrome. Which of the following tests is most likely to result in an abnormal finding?

- A. Antiphospholipid antibody
- B. Fasting blood sugar
- C. Fetal karyotype
- D. Kleihauer-Betke
- E. Rapid plasma reagin
A young white couple comes to you for preconception counseling. From the medical history, you learn that both individuals were born and raised in Quebec, Canada. You recommend carrier screening for

A. Alpha-thalassemia
B. Beta-thalassemia
C. Sickle cell disease
D. Smith-Lemli-Opitz syndrome
E. Tay-Sachs disease

22 yo presents for preconception counseling. Lab tests obtained by her family practice physician indicate that she is sero-susceptible to toxoplasmosis. She asks whether avoiding contact with her cat’s litter box is sufficient to prevent toxoplasmosis. You explain that toxoplasmosis infection also can be acquired by

A. Consuming undercooked meat
B. Consuming unpasteurized milk products
C. Getting bitten by fleas that have fed on cats
D. Having sexual contact with someone who has a toxo infection
E. Providing care for someone with toxo

Most common mode of inheritance for Spina Bifida

A. Autosomal Dominant
B. Autosomal recessive
C. X linked dominant
D. X linked recessive
E. Multifactorial
Which of the following organ systems develops last?

A. CNS
B. External genitalia
C. Ear
D. Heart
E. Eyes

• Major congenital anomalies are observed in approximately ______% of all births.
  a. 5
  b. 1
  c. 10
  d. 3

• The critical period of organogenesis is:
  A. 10-16 days
  B. 17-56 days
  C. 57-70 days
  D. none of the above
The risk of radiation exposure should be minimized during pregnancy although the risk of ionizing radiation less than ______ to the developing fetus is considered minimal.

- 4 millirads
- 4-5 rads (0.04 to 0.05 Gy)
- 10 rads
- there is no minimal level

The most common sequela in infants born to women with reactivated or recurrent CMV infection during pregnancy is:

- A. Chorioretinitis
- B. Delay in fine motor skills
- C. Intelligence quotient <70
- D. Isolated microcephaly
- E. Sensorineural hearing loss
The primary system in the developing fetus that is affected by parvovirus B19 infection is

A. Cardiovascular
B. Hematopoietic
C. Gastrointestinal
D. Neurologic
E. Renal

The sensitivity of cystic fibrosis carrier screening is most depend on a woman’s

A. Age
B. BMI
C. Ethnicity
D. Gestational age
E. Parity

Most common mode of inheritance for Duchenne’s muscular dystrophy

A. Autosomal Dominant
B. Autosomal recessive
C. X linked dominant
D. X linked recessive
E. Multifactorial
Most common mode of inheritance for Marfan syndrome

A. Autosomal Dominant
B. Autosomal recessive
C. X linked dominant
D. X linked recessive
E. Multifactorial

The use of ACE inhibitors in pregnancy has been associated with what fetal anomaly?

A. Abdominal wall defects
B. Cardiac malformations
C. Cleft lip and palate
D. Sacral agenesis
E. Skull hypoplasia

In addition to fetal neural tube defects and abdominal wall defects, elevated levels of maternal serum AFP can also be associated with:

A. Duodenal atresia
B. Retinoblastoma
C. Tetralogy of Fallot
D. Trisomy 21
E. X linked ichthyosis
At 23 weeks, a woman receives a positive test result for CMV IgM and IgG. She has no history of viral illness during the pregnancy. The most useful method to distinguish recent from remote CMV infection is

A. A repeat IgG assay in 3 months
B. A repeat IgM assay in 3 months
C. IgG avidity testing
D. Culture of maternal nasopharynx
E. Amniotic fluid acetylcholinesterase testing

33yo primiparous woman gives birth at term without complications. An assessment of the newborn shows a cleft lip and palate, microphthalmia and rocker bottom feet. Her karyotype is Tri 13. The most likely etiology of this abnormality is

A. Dispermic fertilization
B. Mitotic nondisjunction
C. Maternal meiotic nondisjunction
D. Paternal meiotic nondisjunction
E. Robertsonian translocation

Which antiseizure medication is absolutely contraindicated during pregnancy?

A. Carbamazepine
B. Phenobarbital
C. Phenytoin
D. Trimethadione
E. Valproic acid

- Trimethadione Syndrome
  - Cranial and facial
  - Cardiac
  - Neural Tube defects
  - Omphalocele
  - Developmental delay
The neural plate appears during which week of gestation?

A. 2nd week  
B. 3rd week  
C. 4th week  
D. 5th week  
E. 6th week

Match the following genetic assessment needed for each ancestry:

- Eastern European Jewish
  - a. alpha thalassemia
- Caucasian
  - b. beta thalassemia
- African American
  - c. Sickle cell/thalassemia
- Mediterranean
  - d. cystic fibrosis
- Asian
  - e. Tay-Sachs and Canavan

If indicated, the SSRI (selective Serotonin Reuptake Inhibitor) selected by Expert Consensus Guidelines as top choice during pregnancy if planning to breastfeed is:

A. Paroxetine  
B. Sertraline  
C. Fluoxetine  
D. Citalopram
• The risk of Epstein’s anomaly following prenatal lithium exposure is:
  a. 1%
  b. 10%
  c. 0.1%
  d. none of the above

• The sensitivity of a test is the ability of the test to detect actual disease. In this example, the sensitivity of the rapid diagnostic test is the percentage of all patients with actual *Trichomonas vaginalis* (all disease positive) who actually had a positive rapid test result — true positive (true positive/all disease positive or 97/100).

• The specificity of a test is the ability of the test to detect a lack of disease. In this example, the sensitivity of the rapid diagnostic test is the percentage of patients without *Trichomonas vaginalis* (all disease negative) who had a negative rapid test result — true negative (true negative/all disease negative or 95/100).

• The positive predictive value (predictive value, disease) is the percentage of patients with a positive rapid test result (all test positive) who actually had *Trichomonas vaginalis* — true positive (true positive/all test positive or 97/102).

• The negative predictive value (predictive value, no disease) of the new test is the percentage of patients with a negative rapid test result (all test negative) who did not have *Trichomonas vaginalis* — true negative (true negative/all test negative or 95/98).
You have conducted an experiment to evaluate the performance of two rapid diagnostic tests for the identification of Staphylococcus species. The results of your experiment are summarized below. Assuming that the gold standard for diagnosis is the PCR test result, what would be the positive predictive value?

### Table 1

<table>
<thead>
<tr>
<th>Sample</th>
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<th>PCR Test Negative</th>
<th>Total</th>
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<tr>
<td>B (83)</td>
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<td>C (83)</td>
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<td>D (84)</td>
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### Table 2

<table>
<thead>
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<th>Sample</th>
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<tr>
<td>A (82)</td>
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<td>2</td>
</tr>
<tr>
<td>B (83)</td>
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<td>2</td>
<td>2</td>
</tr>
<tr>
<td>C (83)</td>
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<td>1</td>
<td>2</td>
</tr>
<tr>
<td>D (84)</td>
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<td>2</td>
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</tr>
</tbody>
</table>
In the study 125 of 500 women had a positive culture for Group B streptococcus. Therefore, the prevalence of Group B streptococcus is 25%. Sensitivity is the ability of a test to correctly classify an individual as “diseased”. It is the percentage of women with Group B streptococcus (all disease positive) with a positive NAAT (true positive) – true positive/all disease positive = 120/125. Specificity is the ability of a test to correctly classify an individual as “disease-free”. It is the percentage of women without Group B streptococcus (all disease negative) with a negative NAAT (true negative) – true negative/all disease negative = 360/375. The positive predictive value is the percentage of patients with a positive test (all test positive) who actually have the disease (true positive) – true positive/all test positive = 120/135. The negative predictive value is the percentage of patients with a negative test (all test negative) who do not have the disease (true negative) – true negative/all test negative = 360/365.