Pregnancy-
What to Expect.........Or Not

Optimim Re- 2010 Underwriting Seminar
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• Pregnancy Statistics
• Normal Pregnancy
• Complications of Pregnancy
• Chronic Diseases and Pregnancy
• Case Studies
Pregnancy Statistics - In U.S.

- 60 million females of childbearing age in US (ages 15-44)
- 6 million pregnancies each year
- 4 million live births
- 2 million lost pregnancies
  - 50% abortion
  - 30% miscarriage (10% of all pregnancies)
  - < 4% ectopic or molar pregnancies (~1% of all pregnancies)
- < 30,000 stillbirths each year (~1/200 pregnancies)
Pregnancy Statistics - In U.S.

- 1/6 pregnant females have some complication
- 68 million men and women have an STD that can cause infertility or a pregnancy complication
- ~ 1/6 women smoke during pregnancy; twice as many drink ETOH during pregnancy; ~ 4% abuse drugs while pregnant
- ~ 4% of pregnant women suffer domestic violence
- 500,000 premature births each year (~12% of live births)
- ~ 8% of babies have low birth weight
- ~ 4% of live births have a birth defect
- Rare for women to die as a result of pregnancy or childbirth but…….
Maternal Mortality - Definitions

• Maternal mortality rate - number of deaths directly or indirectly related to pregnancy
  – Denominator is 100,000 live births

• Direct maternal death rate - death from complications of pregnancy, delivery, or the puerperium

• Indirect maternal death rate - deaths often related to underlying medical conditions aggravated but not caused by the pregnancy
Maternal Mortality - Statistics

- U.S. ranks 41st in maternal mortality

Rank by lifetime risk of death from pregnancy-related cause:

1. Ireland 1 in 47,600
2. Bosnia and Herzegovina 1 in 29,000
3. Italy 1 in 26,000
4. Greece 1 in 25,900
5. Austria 1 in 21,500
6. Germany 1 in 19,200
7. Czech Republic 1 in 18,100
8. Denmark 1 in 17,800
9. Sweden 1 in 17,400
10. Spain 1 in 16,400
41. United States 1 in 4,800
171. Niger 1 in 7
Maternal Mortality - U.S. Statistics

- U.S. ranks 41st in maternal mortality
- Getting worse in the past several decades
  - 1982: 7.5 deaths/100,000 live births
  - 2004: 13.2 deaths/100,000 live births
  - 2005: 15.1 deaths/100,000 live births
    - 36.5/100,000 in African Americans; 10.2/ in Hispanic; 9.1/ in White
    - 29.3/100,000 in women age 30 & over
- Far from the US Department of Health and Human Services goal of less than 3.3/100,000 by 2010
- Various reasons: lack of health care; racial disparity; lack of good reporting and analysis, etc
- Most common causes: embolism, non-obstetric injuries, hypertensive diseases of pregnancy, ectopic pregnancy, obstetric hemorrhage
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Normal Pregnancy - Routine “Problems”

- Back pain
- Breast tenderness
- Carpal tunnel syndrome
- Constipation
- Contractions: Braxton Hicks
- Dehydration
- Edema
- Fatigue
- GERD
- Gingival changes - gingivitis
- Hemorrhoids
- Increase eccrine and sebaceous function
- Lightheadedness
- Lower abdominal pain/mild uterine cramping
Normal Pregnancy - Routine "Problems"

- Nasal congestion
- Nausea/Vomiting - "morning sickness"
- Palpitations
- Pica
- Rapid heart beat
- Round ligament pain
- Shortness of breath
- Skin Changes – nail changes, pigmentation, spiders, striae, hirsutism, postpartum hair loss
- Round ligament pain
- Urinary frequency
- Vascular veins
Pregnancy Weight

• Normal weight gain is on average between 25-35 pounds. One to five pounds during the first trimester and, thereafter, one pound a week.
  – If underweight to begin with, likely will gain more (28-40#)
  – If overweight, may need to gain less (15-25#)
  – If obese, 11-20#

• Excess weight gain is associated with higher cesarean risk and other complications (gestational diabetes, pregnancy-associated hypertension)

• Overweight at outset is associated with increase risk of preeclampsia and gestational diabetes

• Too little weight gain can result in premature birth and low birth weight baby
Normal Hemodynamic Adaptations to Pregnancy

• Increase in cardiac output - 30-50% increase

• Increase heart rate - 15 to 30 beats/min

• Reduction in blood pressure
  – 10mmHg below baseline in 2\textsuperscript{nd} trimester, declining to a mean of 105/60 mmHg in 3\textsuperscript{rd} trimester. Diastolic pressure normalizes by term

• Blood volume expansion (30-50%)
  – 6-8 liter increase in water

• Modest reduction in hematocrit (physiologic anemia of pregnancy)
  – Anemia is defined as Hb < 10.5 g/dL (not <14 g/dL as in nonpregnant woman)

• Reduction in prothrombin and partial thromboplastin times (20%) - net result is a hypercoaguuable state
Normal Hemodynamic Adaptations to Pregnancy

Normal Physical findings and symptoms include:

- Innocent breathlessness, easy fatigability, decrease exercise tolerance, basal rales that disappear with cough or deep breath, peripheral edema

- Shift of heart position, higher heart rate, louder heart sounds, 3\textsuperscript{rd} heart sound, venous hum, systolic ejection murmur (up to 2/4)

- Echocardiogram may show physiologic multivalvular regurgitation, mainly right sided, in late gestation and early postpartum. May also be chamber enlargement, valvular annular dilatation, and a small pericardial effusion

- Electrocardiographic changes may include LAD, LAE, arrhythmias (SVT, PVCs), ST and T wave changes

- CXR may give the appearance of cardiomegaly and increase pulmonary vascular markings
Normal Gastrointestinal Tract Adaptations to Pregnancy

- Gingivitis
- Pregnancy epulis (granuloma on gum)
- Increase transit time
- GERD - 30-50% of all pregnancies
- Predisposition to aspiration of gastric contents
- Serum albumin levels decrease
- Serum alkaline phosphatase levels increase (2-4 x normal)
- Serum gammaglutamyl transpeptidase is significantly reduced
- Other LFTs normal or slightly increased or decreased but within the normal range
- Decrease gallbladder motility (increases risk of gallstones)
Normal Renal/Urinary Adaptations to Pregnancy

- Kidneys increase in size by 1-1.5cm
- Kidney volume and glomerular filtration rate increase
  - Decrease in serum creatinine to a normal range of 0.4 to 0.8 mg/dL
  - Decrease blood urea nitrogen (BUN) to 8 to 10 mg/dL
- Hyponatremia
- In normal pregnancy, urinary protein excretion increases substantially. It is considered abnormal when it exceeds 300 mg/24 hours (in non-pregnant individuals abnormal is when it exceeds 150mg/24 hours)
- Renal pelvis and ureters dilate (hydronephrosis and hydroureter); results in urinary stasis and contributes to risk of infection
- Urinary frequency and nocturia, stress incontinence
Normal Endocrine/Metabolic Adaptations to Pregnancy

• Glucose metabolism
  – FBS is 10-20% lower
  – Increase insulin resistance and hyperinsulinemia (predisposes to diabetes)

• Lipid metabolism
  – Marked increase in cholesterol and triglycerides

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<th>Late Pregnancy</th>
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Normal Endocrine/Metabolic Adaptations to Pregnancy

• Thyroid
  – Normal changes include increase serum thyroxine-binding globulin (TBG) and stimulation of thyrotropin (TSH) receptor
  – Results in increase serum total thyroxine (T4) and triiodothyronin (T3) but not serum free T3 or T4
Normal Reference Ranges for Labs in Pregnancy

• The many physiologic adaptations to pregnancy result in many significant changes to laboratory test values.

• Unfortunately, very few labs provide normal reference ranges for pregnancy

• Can vary between trimesters

• See appendix
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- Pregnancy Statistics
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- Case Studies
Pregnancy Complications - Not Routine

- Abnormal Pap Smears
- Amniotic Fluid Complications
- Bleeding
- Deep venous Thrombosis
- Digestive complications
- Ectopic Pregnancy
- Gestational Diabetes
- Group B Strep
- Liver Diseases
- Low Birth Weight
- Miscarriage
- Molar Pregnancy

- Placental Complications
- Preeclampsia/Eclampsia
- Preterm labor
- Rh Negative disease
Abnormal Pap Smears and Pregnancy

• CIN 1 is followed up 6 weeks or more AFTER pregnancy. Low risk of CIN 2,3 or invasive cancer being missed or developing during pregnancy.

• CIN 2,3 is monitored but not treated during pregnancy. High rate of regression in postpartum.

• Excisional procedures slightly increase the risk of preterm delivery but ablative treatments do not. The risk of infertility related to treatment is very small.
Amniotic Fluid Complications

• Polyhydramnios (too much)
  – 1% of all pregnancies
  – Can lead to placental abruption, preterm labor, stillbirth, postpartum hemorrhage
  – Causes include uncontrolled diabetes, multiple pregnancy, incompatible blood types, or birth defects

• Oligohydramnios (too little)
  – 4% of all pregnancies
  – May indicate birth defects, growth retardation or stillbirth. Can be associated with post-term pregnancy, maternal diabetes, HBP, or SLE, certain meds
  – Can lead to miscarriage, premature birth, stillbirth, cesarian section.

• Amniotic Fluid embolism
  – Rare
  – 61% maternal mortality rate accounting for 5-10% of maternal deaths
  – Most survivors have neurological deficits
Bleeding

• Early pregnancy
  – Common (9%) and not always indicative of a problem
  – May indicate a miscarriage

• Late Pregnancy
  – Causes include placental complications or vaginal or cervical infections
  – Greater risk of fetal loss or hemorrhage

• Postpartum Hemorrhage
Deep Vein Thrombosis (DVT)

- Occurs in 0.5-7/1000 pregnancies (risk increases with each successive trimester and is highest in 3 month postpartum period)
- 2nd most common cause of maternal death after bleeding
- Due to increase hypercoaguuable state of pregnancy (which is physiologic). Risk is higher in women with underlying inherited thrombophilia
- Treatment: anticoagulation. Prophylactic if additional risk factors
Digestive Complications

- Hyperemesis gravidarum
  - Most common
  - Excessive or abnormal vomiting
  - 1-10% of pregnant women
  - Can lead to starvation and an imbalance of fluids (weight loss and dehydration)
  - May need to be treated with IV fluids and anti-vomiting meds
Ectopic Pregnancy

- Development of fetus outside the uterus - fallopian tubes ("tubal pregnancy"), cervical canal, or pelvic or abdominal cavity

- Cause is usually a blocked fallopian tube. Can be due to STD such as chlamydia, infection such as pelvic inflammatory disease (PID), prior ectopic, prior tubal surgery, fertility treatments

- Risk factors also include increasing age and smoking

- 2% of all pregnancies

- Symptoms/Signs: spotting, heavy bleeding, cramping, severe abdominal/pelvic pain, dizziness

- Treatment: early termination of pregnancy (surgery or medication)

- May adversely affect future reproduction

- Leading cause (9-13%) of pregnancy-related death (30-40 women/year)
  - Massive hemorrhage, disseminated intravascular coagulopathy (DIC) and death
Gestational Diabetes

• Diabetes that develops during pregnancy

• 4/100 pregnancies; as much as 18% using different criteria

• Occurs when pancreatic function is insufficient to overcome the multiple factors that predispose to diabetes during pregnancy (insulin resistance, increase maternal adipose deposition, decrease exercise, increase caloric intake)

• FBS > 92 mg/dL but < 126 mg/dL at the 1st prenatal visit or abnormal 2 hour oral glucose tolerance test

• Risk factors: age 30 or older, overweight, excessive pregnancy weight, family history of DM, certain race/ethnicities (African-American, Native American, Asian Hispanic, Pacific Island), prior history of gestational DM, prior large baby (9.5# or more), prior stillbirth, polycystic ovary syndrome, hypertension
Gestational Diabetes

- If untreated, there is an increased risk of large baby (> 10#), birth defects, stillbirth, and newborn complications
- Usually resolves after pregnancy
- 66% chance of recurrence with another pregnancy
- Increased risk of mother developing diabetes later in life (10% per year)
Liver Diseases

- **Fatty liver disease**: rare, cause unknown. Usually associated with preeclampsia and occurs in third trimester. Symptoms include N/V, abdominal pain, jaundice. Liver failure may occur. Maternal mortality < 3%. Fetal mortality 35-45%

- **HELLP syndrome**: rare (1-2/1000 pregnancies). Named after its characteristic findings - Hemolysis, Elevated Liver enzymes, and Low Platelets. It is likely a severe form of preeclampsia involving liver inflammation. Occurs between 28-36 weeks. Maternal morbidity: DIC (21%), ARF (8%), Pulmonary edema (6%), jaundice, liver hematoma (1%), ascites, retinal detachment (1%). One percent of mothers die. Seven to 20% of the babies die

- **Intrahepatic Cholestasis of Pregnancy**: 1% of pregnancies. Generalized itching. Maternal outcomes usually good but fetal outcomes can be poor
Miscarriage/Fetal Loss

• Miscarriage is the loss of the fetus up to 12 weeks of pregnancy. Most are due to fetal defects
  – Symptoms/Signs: bleeding, cramping
  – Diagnosis: Ultrasound, blood tests
  – Treatment: natural evacuation or dilatation and curettage (D&C)

• Fetal Loss is the loss of the fetus after 12 weeks
  – Examples of causes include incompetent cervix
Molar Pregnancy

• In molar pregnancy the early placenta grows abnormally into a mass of cysts, called a hydatidiform mole. The embryo does not form at all or is malformed and cannot survive.

• Occurs in 1/1500 pregnancies.

• In some, the molar tissue can form into a rare cancer called choriocarcinoma. Very curable.
• Placental Abruption (Abruptio Placentae)
  – Placenta detaches from the uterine wall prematurely. Can be partial or complete
  – Occurs in 1/120 live births; fetal death in 1/830 pregnancies. Maternal deaths can occur due to hemorrhage or C-section complications
  – More common in women who smoke, use drugs, have high blood pressure, have diabetes, have multiple pregnancy, have prior children, and/or have prior history of placental abruption
  – Symptoms/Signs: bleeding, cramping, abdominal tenderness
  – Diagnosis: Ultrasound
  – Can cause a reduction of oxygen and nutrients to fetus
  – Treatment: hospitalization; often early delivery or premature baby
Placental Complications

• Placental Previa
  – Placenta is attached close to or covering the cervix
  – Occurs in 1/200
  – More common if scarring of uterine wall from prior pregnancies or with fibroids or other uterine abnormalities, or women with prior uterine surgeries. Also more common in women who smoke, use cocaine, or age over 35
  – Symptoms/Signs: bleeding
  – Diagnosis: Exam and Ultrasound
  – Treatment:
    • Many self-correct
    • Bed rest, decrease activities hospitalization; usually delivery by cesarean section
Preeclampsia/Eclampsia (Toxemia)

- Preeclampsia is characterized by the following:
  - Pregnancy induced high blood pressure ≥140/90
  - Protein in the urine (>300 mg/24 hours)
  - Swelling due to fluid retention

- Incidence: 7-10% of all pregnant women; 2-6% of healthy women

- Cause is unknown

- Risk factors: multiple fetuses; teenage pregnancies; women over 40; women with pre-existing HBP (20-25%), obesity, diabetes, Systemic Lupus Erythematosus, kidney disease, African-American race

- Appears anytime between the second trimester and the first few days postpartum. More common in 1st pregnancies
Preeclampsia/Eclampsia (Toxemia)

- Symptoms/signs:
  - Swollen hands/feet-face, HBP, headache/dizziness, blurred vision, decrease urine output, abdominal pain. Multi-organ dysfunction (CNS, Liver, Lungs, Kidneys, Blood)
  - Mild in 75% of cases, severe in 25%
  - Eclampsia is the more severe form which can lead to seizures, coma, liver failure, renal failure, death

- Treatment:
  - May include hospitalization, bedrest, HBP meds, close monitoring of mother and fetus
  - Delivery of baby is really the only cure
Preeclampsia/Eclampsia (Toxemia) - Prognosis

- Accounts for 15% of premature deliveries and 17.6% of maternal deaths
- **Maternal death rate**: 0-1.8% (6.4/10,000 cases at delivery)
  - Rate is twice in high in African American women than white women
  - Perinatal rate is 5.6-11.8%
- Maternal complications from eclampsia include permanent CNS damage from recurrent seizures or intracranial bleeds, disseminated intravascular coagulopathy, renal insufficiency, pulmonary edema, and cardiopulmonary arrest
- 25% have hypertension in subsequent pregnancies; 2% with eclampsia have it in subsequent pregnancy; 10% have recurrence of preeclampsia
- **Increased risk for cardiovascular disease later in life**
  - Risk of chronic hypertension: RR 2-8
  - Cardiovascular mortality/morbidity: RR 1.3-3
Puerperium - Complications

- Postpartum hemorrhage
  - Causes include uterine atony, uterine rupture, lacerations, coagulopathy, retained products of conception, infection, etc
  - 3.9% incidence with vaginal delivery; 6.4% with cesarean
  - Responsible for 5-8% of maternal deaths

- Endometritis
  - 1-3% incidence with vaginal deliveries; 5-15% cesarean

- Urinary tract infections
  - 3-34% incidence (only 2% symptomatic)

- Mastitis
  - 2.5-3% incidence
  - 5-11% of cases develop abscesses
Puerperium - Complications

• Psychiatric disorders
  – Postpartum blues (50-70% of women)
    • Lasts hours to weeks (usually less than 2 weeks)
    • Bouts of crying and sadness
  – Postpartum depression (10-15% of new mothers)
    • Lasts weeks to months
    • Symptoms similar to other depression
    • Women with a prior history of depression unrelated to childbirth have a 30% incidence
  – Postpartum psychosis (0.14-0.26%)
    • Occurs in first postpartum year
    • More common in women with a history of bipolar disorder or prior episode of postpartum psychosis
Puerperium - Complications

- Wound infection
  - 0.35-10% incidence of perineal infections; 3-15% incidence of abdominal
  - Mortality is rare

- Septic pelvic thrombophlebitis
  - 1 in 2000-3000 pregnancies; 10x more common with cesarean (1/800)
  - Mortality is rare

- Endocrine disorders
  - Postpartum thyroiditis
    - 5-10% incidence (up to 25% of women with type I diabetes)
    - 2 phases: thyrotoxicosis and hypothyroidism
    - No increase mortality
  - Postpartum Graves
  - Lymphocytic hypophysitis
  - Sheehan syndrome
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Antiphospholipid Antibody Syndrome and Pregnancy

- Associated with pregnancy complications that include fetal loss, fetal growth restriction, preeclampsia, thrombosis, and autoimmune thrombocytopenia
- Associated with arterial and venous thrombosis, cerebrovascular and cardiovascular events
- Pregnant women with APS are considered high-risk obstetric patients
- Anticoagulation with heparin is recommended during pregnancy and the postpartum period
Cancer during Pregnancy

- Cancer
  - Cancer during pregnancy is rare (1/1000). Pregnancy doesn’t cause or increase cancer
  - Cancers seen in pregnancy are the ones expected in this young female population (breast is most common)
  - Pregnancy often delays diagnosis and/or treatment
  - Prognosis is usually not effected by pregnancy unless treatment is delayed. Some cancers such as melanoma can be stimulated by pregnancy hormones
  - Pregnancy after cancer is in general safe. Pregnancy does not appear to increase the chance of recurrence
Cardiovascular Diseases during Pregnancy

• Heart disease
  – One of the major causes of death in pregnant women. Most women with heart disease have no problems with pregnancy however if the underlying disease is more serious, the added strain on the heart from pregnancy may lead to heart failure and even death

• High Blood Pressure
  – Most common medical problem seen during pregnancy (2-3% of all pregnancies)
  – 4 categories during pregnancy:
    • 1) Chronic HBP - prior to pregnancy or before 20 weeks
    • 2) Preeclampsia/eclampsia
    • 3) Preeclampsia superimposed on chronic hypertension
    • 4) Gestational hypertension
Cardiovascular Diseases during Pregnancy

- **High Blood Pressure**
  - Women with chronic HBP are at increased risk of heart attack and stroke, slow fetal growth and low birthweight, preterm delivery, placental abruption, and preeclampsia (25%)
  - Women with HBP before pregnancy or during early pregnancy have a 2-fold increased risk of gestational diabetes
  - Women with transient hypertension of pregnancy have a higher risk of developing chronic hypertension later in life
  - Hypertensive disorders during pregnancy are a leading cause of maternal mortality (cause ~16% of all maternal deaths)
Diabetes During Pregnancy - New Terminology

• Overt Diabetes (accounts for 8% of cases of DM in pregnancy)
  – Criteria met at initial prenatal visit
    • FBS $\geq$ 126 mg/dL or
    • A1C $\geq$ 6.5 percent or
    • Random blood glucose $\geq$ 200 mg/dL subsequently confirmed by FBS or A1c, as above
  – Affects 1% of all pregnancies

• Gestational Diabetes (accounts for 90% of cases of DM in pregnancy)
  – FBS > 92 mg/dL but < 126 mg/dL at initial prenatal visit or abnormal oral glucose tolerance test
Diabetes During Pregnancy - Associated Risks

- Miscarriage
- Preeclampsia
- Polyhydramnios
- Fetal macrosomia
- Birth trauma (2x risk of serious birth injury)
- Operative delivery (3x risk)
- Perinatal mortality (congenital malformations, respiratory distress, extreme prematurity)
- Neonatal metabolic complications (hypoglycemia, hyperbilirubinemia, hypocalcemia)
- Risk to child: higher rates of obesity and diabetes, impaired motor function, inattention and hyperactivity, birth defects
Kidney Diseases during Pregnancy

- **Pyelonephritis**
  - The most common kidney disease during pregnancy
  - Can result in premature labor if not treated promptly (why UTIs need to be treated)

- **Chronic kidney disease**
  - Women with pre-existing severe kidney disease can have many serious pregnancy complications: severe HBP and kidney failure can be life-threatening for both the mother and fetus
Other Diseases during Pregnancy

• Lung disease
  – Mild asthma usually stays the same, but may improve or worsen. If the asthma is severe before, it usually worsens
  – Women with severe asthma are more likely to have preeclampsia, pregnancy-induced hypertension, premature birth, low birth weight, uterine hemorrhage, congenital anomalies
  – Maternal mortality is same as general population

• Nervous System Disease
  – Headaches are common
  – Numbness, tingling are common
  – Epilepsy: 50% experience worsening with pregnancy. Fetus at increase risk of congenital abnormalities and neurologic problems, primarily due to antiepileptic meds. Women with epilepsy have higher risk of complications (severe morning sickness, anemia, vagina bleeding, placental abruption, preeclampsia, premature birth, low birth weight baby. Also at risk due to trauma and hypoxia. > 90% uncomplicated if well monitored and managed
Other Diseases during Pregnancy

• Rheumatoid Arthritis
  – Disease activity tends to decrease during pregnancy and increase after delivery (~40% have a flare postpartum). No evidence that pregnancy effects risk or severity of RA long term
  – May be increase risk of premature birth; may be adverse effects of drugs on fetus
Thyroid Disease in Pregnancy

• Hyperthyroidism during pregnancy (0.1-0.4%)
  – Can result in miscarriage, premature labor, low birth weight, stillbirth, preeclampsia, heart failure
  – Most common cause is Grave’s disease
  – Good fetal and maternal outcome depends on control

• Hypothyroidism during pregnancy (2.2%)
  – Can result in miscarriage, placental abruption, preeclampsia, preterm delivery, low birth weight, perinatal morbidity and mortality, cognitive impairment in the child, postpartum hemorrhage
  – Most common cause is Hashimoto thyroiditis
  – Good fetal and maternal outcome depends on control
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Case 1 and 2

- 32 year old female, 26 weeks pregnant with second child, applying for $500,000 term
- History of gestational diabetes with her first pregnancy 3 years ago. She had an uneventful delivery of a healthy baby boy. Six weeks postpartum her blood sugars returned to normal
- At her initial prenatal visit her FBS was 99mg/dL. She is otherwise having an uneventful pregnancy and is being closely monitored
- Currently on the paramedical exam she is 5’ 4”, 158#, BP 100/65. She admits to being on insulin. Her labs are normal except for a FBS of 123mg/dL
- How would you assess this risk?
- Case 2: What if her initial prenatal visit FBS was 130mg/dL with an A1C of 6.5%?
Case 3

- 28 year old female, 32 weeks pregnant, applying for $100,000 term
- First pregnancy
- No medical history other than current pregnancy noted on the application
- Simple paramedical indicates 5’6”, 200#, BP 138/88
- Insurance labs show:
  - ALT 48 U/L
  - AST 45 U/L
  - Albumin 3.1 g/dL
  - Alkaline phosphatase 175 U/L
  - Creatinine 1.1 mg/dL
  - Urine protein 33mg%
  - P/C ratio 0.20

- How would you assess this risk?
Case 4

- 28 year old female applying for $1 million permanent life insurance

- She is currently 31 weeks pregnant. At 10 weeks of pregnancy she was hospitalized due to nausea, vomiting and a 10 pound weight loss from her pre-pregnancy weight of 140 pounds. She was treated the first day of the hospitalization with IV fluids, including vitamins and minerals and then remained in the hospital another 3 days on nasogastric feedings. She was discharged home and remained on nasogastric feedings for another 5 weeks. She has been on an oral diet since 16 weeks. In weeks 16 to 24 she had occasional vomiting – at most 3-4 x/ week and never more than once a day. For the past 7 weeks she has had no vomiting

- Paramedical exam shows she is 5’6, 154 pounds, BP 100/68, pulse 65, albumin 3.4, cholesterol 262, alkaline phosphatase 180, otherwise labs unremarkable

- How would you assess this risk?
Case 5

• 33 year old woman applying for $250,000 in term insurance

• Three years ago she had a baby and her pregnancy was complicated by a peripartum cardiomyopathy. Symptoms started 3 weeks after delivery and an echocardiogram at that time showed dilated cardiomyopathy with an ejection fraction of 28%. She was started on medications and did well. Eventually, about 6 months later her echocardiogram was normal and her medications were stopped. She has been followed by a cardiologist since that time.

• Her most recent ECG and echo were done a year ago. Her ECG was normal. Her echo showed an ejection fraction of 65%. Chamber sizes were normal.

• How would you assess this risk?